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The Heart of the Nuclear Darkness

More than five thousand years' march of human civilization culminated in the production and use of mass destruction weapons; a terrible symbol of scientific terror working against humanity. It may be difficult to justify, in the historical perspective, a century later, the atomic bombing of Hiroshima and Nagasaki, which killed 2,50,000 people. This 'ultimate weapon' of which more than 60,000 were produced during the Cold War, was engendered by the age of renaissance and reformation, which informed the scientific and industrial revolution of the last two centuries.

The two world wars in which more than a hundred million people were killed, and the subsequent Cold War when the world lived under a balance of nuclear terror tend to give a pessimistic prognosis about science and technology providing a peaceful planet.

The political philosophy of nuclear weapons has been postulated mainly by Western strategists. From the strategy of 'massive retaliation', and 'mutual assured destruction' (MAD), to 'flexible and graduated response' and 'counter-value' and 'counter-force' targeting, the doctrine of deterrence has remained the mainstay of nuclear weapons. Why can't we achieve deterrence through conventional weapons, particularly now, when new technologies have made possible stand-off and precision guided munitions (PGMs) which can be stealthily delivered by aircraft without warning? Do we continue to need deterrence by nuclear terror? These are vital questions on which the survival of our civilization depends.

In the lead article of this issue, Dr Raja Ramanna, and in the following article, Prof Zuberi, critically examine the international politics of nuclear weapons and present their ideas with penetrating insight into the problems of nuclear proliferation. The discriminatory nature of Non-Proliferation Treaty, due for extension in 1995, and which India and Pakistan are being urged to sign, has been well high-lighted.

Desultory discussion about nuclear non-proliferation-vertical and horizontal-would only lead to congenital insecurity; nuclear weapons must be eliminated as instruments of diplomacy. The indignity and humiliation of poverty for a billion people in China, India, and Pakistan, who in the midst of life are in death, calls for a grand design to build a new nuclear weapons -- free international order.

Security, Deterrence, and the Future*

DR RAJA RAMANNA

I propose to speak today, on the subject of 'SECURITY, DETERRENCE, AND THE FUTURE'. While much has been written and said about the subject, most people have not realised its significance for the future. In recent times Security and Deterrence have put the world to ransom, and its various interpretations have confused most people. It is a burning issue of the hour and it is important that its implications are known to the public.

If the world has to survive, as a place for everyone to flourish whatever be his country, colour, ethnicity, culture, and historical background, the problem of security and deterrence for each of them has to be resolved and the future made more secure for all of them. The world is still a fragmented society and many important decisions are still taken on the basis of divisions. In the narrow colonial world of the past, few questioned both the relevance and ordering of fragmentation. But now that competition has become more equitable between nations and people, rivalry has become more obvious and sometimes openly violent. Some people even believe that a return to some kind of colonial re-grouping is indeed an actual alternative and attempts are being made to bring it in by the back door.

The problems of Security have become so complex and involved in recent times that, if peace is to prevail, it cannot be left to the decisions of only politicians and military-men. The implications on the future of the human race are so great that its very survival is in question.

These statements may seem like old cliches, for the subject has been debated in similar language for nearly half a century. Be that as it may, at the moment no tangible solutions are in sight and what is worse there is no strong evidence of even a desire to find a solution. A problem like this cannot remain for long with neither a solution, nor even a desire for one, without a catastrophe of some horrendous type appearing on the scene. Each day adds to the many irreversible situations and some people have begun to feel that the only way out is through violent and unjust solutions.

Let me briefly trace the nature of the problem to be able to focus on the ever expanding difficulties.

*Text of Chidambaram Chettyar Memorial Lecture delivered on July 8, 1992, by Dr Raja Ramanna, Director National Institute of Advanced Studies, and former Minister of State for Defence, Government of India.

In the past, right from ancient times, we in India as in other countries have suffered because of inadequate defence preparations. At times we have faced total disappearance as a civilization. The whole world knows, in spite of all the writings on the subject, that even now, military power is the only power that is respected. If a large scale war has been avoided since the Second World War, the mutual fear of total annihilation on both sides has been the reason. Though very recently the possibilities of a global war at super power level have receded. One has to note that the psychology of fear, weakness and helplessness on the one hand and the arrogance of power on the other have been enhanced. This is a position of very unstable equilibrium.

Since the end of the Second World War, the problem of security has become aggravated because of two reasons: military power has become synonymous with technological and Industrial power, and new developments in technology have brought the situation to a state, where weapons of destruction have not merely been improving in potency in some linear manner, but a fundamental change in overall capability has taken place. Besides being assisted by automation, never dreamt of before, some of them have reached the status of what is known as "ultimate" weapons, i.e. their individual destructive capacity is more than what the world can bear. The "ultimate" weapon has the power of destroying vast areas of the earth and making them uninhabitable in a matter of a few seconds. In spite of this, the "Ultimate" nature of modern weapons does not by itself seem to be sufficient for countries to give up further development of more efficient weapons. Greater effort is being put on defence research and the testing of weapons continues as before. In some countries the burden of deterrence has messed up not only their entire economic structure, but even their very integrity as nations.

The impression created towards the end of the Second World War was that new technologies created during the War would be available only to a few advanced countries, and the situation though unrealistic would continue to stay that way. On the positive side there was at that time a certain degree of optimism in the world, that one country or a set of countries would not try to dominate the world on the basis of their military power alone, and that some moral forces would prevail for the emergence of a united law abiding World. However, in spite of such enlightened perceptions, the United Nations Organisation in reality was created on the premise, that the victors of the Second World War were the best to look after the interests of the security of the World.

Immediately after the war, in the U.S.A., which came out as the real victor in the war and which had the monopoly of "Ultimate" Weapons, rather unpleasant signs began to show up in the form of Macarthyism. That

liberalism would play a minor role in the new world order and a new colonialism would return became a real threat. Though the external manifestations of this disease disappeared, the philosophy of the late Mr. Dulles (former U.S. Secretary of State during the fifties) was that military structure was the essence of order. Thus a system of powerful military groupings came into existence. It is not surprising that the formation of such military treaty organisations eventually weakened the new U.N spirit. Finally came the Cold War from which the World has still not recovered. During this period the arms race returned in full swing, but, this time with nuclear missiles with multiple war heads, nuclear submarines which could launch nuclear missiles from any spot on the earth, highly sophisticated conventional weapons and the like.

The worst aspect of the Cold War was that it began to polarise the countries of the world, especially among those who could hardly afford a military programme. In order to achieve security in their own areas, they had to depend on one or other of the super powers and unwittingly became "friends or enemies" whether they wanted it or not. It also led to the purchase of arms on a large scale by these countries, leaving them in great debt, and resulting in loss of freedom. The non-alignment theory of Nehru was an attempt to maintain a balance, but perhaps not with much success.

The monopoly of the U.S.A. in regard to nuclear weapons came to an end even earlier than expected. This happened even with countries which had developed nuclear weapons jointly during the war. They were forced to go it alone and independent capability spread to several countries. Acquisition of nuclear capability became not only a matter of defence, but a symbol of national sovereignty.

Even after Hiroshima and Nagasaki, it has happened that in moments of stress, advanced countries have actually threatened to use their nuclear weapons in a real situation, e.g. as during the Bangla Desh War and the Gulf War.* While they were quick to make such threats, they could never understand similar reactions in other countries, where there has been greater historical justification for conflicts than the provocation faced by the advanced countries. Only in the case of Israel has the situation been appreciated, mainly because it was essentially a fall-out of an European problem. The theory of security arising from monopoly of nuclear weapons died even before it was born, because it was based on wrong and arrogant principles, that only the so called very advanced nations could achieve such technologies.

Military logicians often try to define the words 'Security' and 'Deterrence' in several ways to suit their purpose. The old slogan, often used just

* According to Mr. Jasjit Singh, Institute for Defence Studies and Analyses, New Delhi, the actual number is 46

before the Second World War was "if you desire Peace (security), prepare for war". We now know that such preparations do not by any means guarantee peace. At the end of the Second World War, when Marshal Stalin was asked by the American representative what exactly he wanted for his country, he is supposed to have replied, 'Security'. The definition of security here must have meant, the existence of friendly buffer States so that the Soviet Union could have time to react to a hostile situation. Those were the days, before long-range missiles came into existence, and occupying armies would in a sense have been delayed before crossing the buffer states and defence plans could have been formulated to take advantage of such delays.

In India, we always think of security with respect to Pakistan. Pakistan besides getting western military aid, spends a lot on defence and actually threatens us with nuclear weapons. It is possible that countries like Pakistan maintain large armies for the sake of internal security. Anyway no neighbouring country can ignore such a build up and a threat of the use of nuclear weapons especially with the existing hostility. In military strategy, even if hostility between the two countries does not exist, something would have to be done about even potential threats.

Security is a word always associated with an impending war. It is not something that one plans for only for the maintenance of peace. Deterrence is however a word connected with the maintenance of peace as such, and is usually connected with the possession of ultimate weapons. The logic of deterrence, namely that neither country possessing nuclear weapons will start a war, depends on many assumptions. For example, the fear that the user nation will suffer as much damage as the attacked nation. This could happen by the spread of damage by shock waves of radio active fall out. The first strike could provoke a second strike from the attacked country if it has survived or its allies, and a second strike could be far more devastating. A small number of such weapons are sufficient for mutual annihilation of countries, and this itself is sufficient deterrence to cast doubts on the outcome of a nuclear military adventure. The possession of nuclear weapons also gives confidence to the conventional forces, in that it confines the possible worst outcome of a war, to only a stalemate. (The possibility of total annihilation is not considered).

On the other side, there are also factors that work against the use of nuclear weapons as deterrents. The possession of the capability itself might tempt one to use it, to get the benefits of a first strike. The delivery systems may not be sufficiently accurate to get on to the target and a false landing particularly inside one's own country can take place. The long term maintenance of these weapons in a state of readiness, with all possible accidents

reduced to a minimum is an expensive and complicated affair. These possibilities become deterrents to deterrence, and weaken the whole logic.

The only time when nuclear weapons were delivered in actual war, was by toss-bombing from an aircraft. Aircraft interception by any enemy country has greatly improved in recent times with the coming of modern electronics, and the possibility of hitting the target and returning safely has become more difficult than ever before. It is for this reason missile delivery has become a part of the "ultimateness" of a nuclear weapon. It has accuracy and cannot be easily stopped and destroyed.

One has often asked what constitutes a Nuclear Weapon which can provide deterrence. As a Nuclear Weapon has many definitions to cover all its political aspects, it may be worthwhile here to consider what are the achievements required for a country to be termed as a "Nuclear Weapon Country".

In the early days of atomic energy even countries which had large deposits of high grade uranium were considered as potential nuclear weapon countries and were indeed graded in a somewhat special way at international meetings. However, ordinary uranium ores require considerable effort in mining, processing and purification operations, before uranium can be used in a reactor to produce plutonium or be enriched to increase its Uranium-235 content. The building of reactors or enrichment plants requires very high technology. The former requires special materials of construction and a high quality of design, operation and maintenance. These operations have to be followed by the reprocessing of the spent fuel for extracting the plutonium. Extraction of plutonium is one of the most complicated operations in Chemical Engineering technology and finally the radiometallurgy required to make plutonium metal suitable for shaping it to a weapon, is a very hazardous operation.

In the latter case of enrichment, the separation of uranium-235 from uranium-238 by centrifugation or diffusion is required so that the uranium-235 isotope is concentrated to very high levels and made into metal before it can be shaped into special forms and incorporated in a special device to produce a weapon. The possession of plutonium of uranium in its enriched form will enable a country to carry out a nuclear explosion but this still does not make it a weapon country, though there is some justification in terming all countries possessing Uranium-235 or Plutonium facilities as weapon countries.

However, for a country to be called a full scale nuclear weapon country, it should be possible for that country to be able to deliver the weapon at the

required target. This can be done by toss bombing from an aeroplane camouflaged amidst other aeroplanes. Toss bombing was used over Hiroshima and it is possible now-a-days by a missile. Further, a weapon can also be smuggled in parts to a particular location and set up there to explode a mode terrorists would follow if they get hold of such weapons materials. All this requires considerable assistance from countries supporting such terrorist activities, perhaps including their respective military services.

In whatever way it is delivered, the essential part is to see that only the target is attacked and no-where-else, and the carrier is not intercepted on its way. This is necessary so that it does not explode in the country of origin or hit a target of no military value.

Proliferation has already come to stay in the so called weapon countries and has spread to other nations if not in final deliverable form, at least in potential, mainly because of the rather ineffective and crude methods of forcing non-proliferation treaties (N.P.T.) on other countries. International inspection which is an important content of N.P.T. is impossible in a complex political situation, e.g. the Gulf War. Countries with a colonial past usually think of no other way to achieve their objective except by use of force and double standards. The use of double standards in the implementation of N.P.T. is a sign that a new colonial era is on its way. Many a time, a country has been made to sign on the dotted line without its knowing what it was all about. There is much jubilation that France and China have signed NPT but being Second World War countries, their special international status permits them to make as many nuclear bombs as they like and test them. The NPT only applies to them in that they will not supply nuclear equipment to other countries who have not signed N.P.T., and therefore they do not come under IAEA inspection. There is no inspection of any sort for Nuclear Weapon NPT countries like France and China, U.K., U.S.S.R. and U.S.A. This is where the discriminatory character of N.P.T. becomes obvious.

Immediately after the Chinese entry into the nuclear weapon club, there were requests from non-nuclear weapon countries to the weapon countries whether they would be provided with a nuclear umbrella, if they forgo a nuclear status. This was rejected by all the weapon countries. For most of them, proliferation and non-proliferation were matters of pure self interest. As long as they were protected, it did not matter what happened to those who did not possess such weapons. Under these circumstances why would countries jump to become N.P.T. countries, when nothing was promised by way of protection. When this was pointed out, the only response was that countries like India usually try to hide their real thoughts using semantics. Strangely enough this country has indeed been protected in the past only by semantics when all the chips were down.

The failure of not being able to convince non-weapon countries about the security and justice of N.P.T. perhaps arose from the fact that, the weapon countries in the earlier years were hoping that, excluding themselves, other countries would not dare to become nuclear weapon countries. Among the countries of Europe there already exists a tacit understanding of a nuclear umbrella. In the Far East and South and East Asia economic control was thought to be a sufficient deterrent to nuclear arms. As far as the rest of the world was concerned, N.P.T., nuclear protection etc. were matters of pure academic interest.

The spirit of the approach to non-proliferation has been till now on embargoes and restrictions on export of nuclear and allied materials. It is now propagated again in the name of "Punitive" sanctions. Punishment even in medieval times referred first to a crime but now it seems punishment can come even before the crime.

It is unfortunate that proliferation is being attempted to be controlled on the basis of punishment, embargoes and methods involving force. There is at the moment no appreciation for acts which lend support to non-proliferation in a voluntary manner. That in spite of great provocation, certain countries who have kept the nuclear option, can at the same time take steps to reduce increased activity towards large scale use of nuclear weapons, has not been understood by the West. Their Aristotelcan approach to all things has led earlier to world wars and now proliferation. In the same manner of thinking they believe that non-proliferation can be pushed in, on the basis they alone are right and everybody else is wrong. The idea of a gradual approach to solution to problems is considered with contempt.

If non-proliferation has to succeed it can only be in a voluntary manner and joint action is essential. It cannot be based on one sided, punitive measures and inspection. Countries must be respected and assisted to implement voluntary proposals. When India tested her only explosion it was carried out underground, at a time when most of the countries were exploding in the open and producing more radio active pollution in the air, than the Chernobyl accident ever did. Though the Indian explosion experiment succeeded in forcing all testing to be carried out underground, no credit was given to India for leadership in introducing discipline in such matters. Even after more than 40 years since the first tests, the ban on testing of Nuclear Weapons has not been implemented by any country except India in a voluntary manner. There has not been even a whisper of protest from those who speak in high moral tones to India, when testing is taking place in weapon countries.

One has often asked why after so many years of development of nuclear

weapons, developed countries still continue testing of weapons. There have been various attempts to ban the testing of nuclear weapons, but all that has been achieved till now is only the "partial test ban treaty" which means that countries can test only underground but not in the open, and thus not pollute the atmosphere. It is strange that countries which had weapon knowhow for several decades still continue to test. Perfecting the weapon and its safe storage, and also developing an appropriate size for various uses justified testing in the early years of atomic energy. In fact, even now there is a case for using nuclear explosions for peaceful purposes (P.N.E.). One has to see the foreign publications before 1974. Interest in PNE suddenly ceased because of the Pokhran test by India. Later, testing became a sign to remind others of the progress made in this line and a demonstration of national power and sovereignty. The tests carried out in the last two months have no justification whatever, except to pose a threat to the world. While it is these countries who should be censured by the world, it is the "would be" and the "have not" countries who are always blamed for proliferation. Such is the new world order.

The International Atomic Energy Agency was created in the late 50s as a part of the Eisenhower plan so that large quantities of enriched weapon-grade fuel could be passed on to civilian uses for badly needed power production in the world. The I.A.E.A. was to oversee that the fuel given for this purpose was not diverted for weapon production. But to extend such inspection to all equipments, however conventional their purpose, was to interfere with international trade and creating unnecessary conflicts and tensions. All that has happened as a consequence is the black market sale of nuclear equipments, engineering goods and even enriched fuel. Even now nobody knows how much unaccounted enriched fuel exists in various parts of the world.

Speaking of the future, one has to admit that a new set back has come about because of the threat of the use of punitive sanctions in connection with non-proliferation and the use of missiles as defensive weapons. It will be recalled that the word "Sanctions" came into existence during the time of the old League of Nations between the two world wars. It was supposed to be used as economic pressure to stop countries from waging wars to colonise weaker nations. The typical example being "Sanctions" against Italy when she tried to conquer Ethiopia in the old colonial sense. But the *New York Times* in an important leader has recently advocated the use of punitive sanctions against India. Our security interests are closely connected with the extent of help given to our neighbours by weapon countries. Aggressive postures on their part are judged on political issues, while legitimate programmes on our side are judged as commercial issues, issues of hegemony and other imaginary scenarios.

We now have to consider the future of security and deterrence in this decade and the next century. The possible scenarios could be listed in some ordering in the following way.

1. The status-quo will continue and Nuclear programmes will reach their own state of equilibrium, with the powerful controlling all nuclear activity.
2. The weapon countries will gradually go on reducing their stock piles and other countries will use enriched material only for power production, using all the available defence stock piles. The inspection procedures can accordingly be increased in all countries leading up to a total nuclear disarmament.
3. Countries which have already developed weapons would come to an agreement that they will neither use them nor give assistance to other countries in whatever form to develop weapons. They would make every effort to stop the smuggling of nuclear materials.
4. A World agreement will be reached that any use of nuclear weapons by any country will be condemned by all. It would be followed by punitive sanctions and if necessary by a take over by United Nations troops. The whole world would rise as one against its use.
5. There will be total nuclear disarmament in the world within the foreseeable future.

It is clear that the last possibility seems very remote. The advanced countries will not give up the power of ultimate weapons. It is of course said that they require it for keeping the stability of the world and giving certain credibility to their policing of the world. But actually it is pure power politics. The first possibility, is the one which is actually in operation. It is a state of severe, unstable equilibrium. Somewhere between these two limits lies the solutions to non-proliferation.

When an agreement between two super powers came into existence it was hoped that other weapon countries in the world would respond to this tremendous transformation and act accordingly. That, however, does not seem to have happened. All that has taken place is that the Soviet Union has disappeared and it is stated that some nuclear weapons have fallen into unauthorised hands. It is now likely that these weapons can get into the hands of terrorists who may or may not have some support of existing Governments. The so called weapon powers should first see that this does not happen, instead of lecturing to law abiding states of the world.

Though the world after the Second World War has progressed considerably in providing food, medical aid and such other assistance to more people, it has not yet reached a point of political or economic stability. People still do not understand that stability is perhaps never possible with ultimate weapons in the hands of a few. The problem cannot also be fragmented into regions of the world. Such fragmentation can only mean regions of influence for the purpose of security, for behind each region there will be a nuclear power to play the old colonial power politics.

Forced non-proliferation by the developed powers will not stop with sanctions and the like. They will probably try to hurt all our industries, especially now, when we are in a weak financial position. Over the years, we have built up large public and private sector industrial complexes which have greatly contributed to our nuclear and other power programmes. We have seen how their structure was being interfered with by people having global connections. One of our great Public Sector Units, the only manufacturing unit in India that can compare with the rest of the world in size and range of industrial items is under attack by vested interests. This great industrial complex has built up capacity of high quality over the years and can take up many new items of value to the country on a purely indigenous basis. But will they be allowed to do this by foreign elements under the new dispensation. One look at the capacity utilisation programme of the unit for the years to come will show how our great industrial set up is being circumscribed and fragmented by foreign pressure. Eventually our industry will become totally foreign controlled. When this happens, no amount of statements that we will never sign NPT will have any significance. We will have no choice and worse control will come in from the backdoor. India will once again be a colony, perhaps a more "developed one" than we were fifty years ago, but a colony all right. All our pious intentions and ambitions to help other developing countries, export to pay back our loans and build national confidence will be in the dustbins of time.

I have perhaps sounded somewhat pessimistic about the attitudes of nations to India. But I do know from my personal knowledge that there is a great appreciation of India's problems and its attitudes in both Europe and America. Earlier I had referred to an editorial in *New York Times* advocating sanctions on India, but I must follow this, by quoting the rejoinder that came from Dr. Goheen, former U.S. Ambassador to India on April 23, 1992. In a very powerful letter to the editor he pointed out the folly of the *New York Times* editorial, particularly its bias towards Pakistan, and how illogical it was to apply punitive sanctions. The letter is a fine example of appreciation of India's point of view by someone who knows India.

Similar thoughts have also been expressed by the great Physicist Free-

man Dyson, in his interesting collection of very enlightened essays entitled 'Infinite in All Directions'. I quote, "If we view the world with a certain largeness of view, we see technology as the gift of God which may make it possible for us to live at peace with our neighbours on this crowded planet. Such a largeness of view is conspicuous by its absence in the thinking of the Reagan administration. I dislike many things which this administration has done and said, but I dislike most of all the mean-spirited attempts to stop the export of technology and hamper the spread of information. These attempts reveal a mentality which is incompatible with any decent respect for the opinions of mankind.... The idea that the United States can play nanny to the rest of the world and constrain the flow of technological goods, to reward our friends and punish our enemies, is a puerile delusion. Technology is God's gift to all nations alike. The rest of the world will quickly learn whatever we attempt to keep hidden. And we will quickly lose the international goodwill which a more generous attitude has earned us in the past. If we are to lead the world toward a hopeful future, we must understand that technology is a part of the planetary environment, to be shared like air and water with the rest of mankind. To try to monopolize technology is as stupid as trying to monopolize air, -- Unquote.

It is, therefore, necessary for us to build up a strong lobby in these countries to explain our attitudes. There is no doubt, that we will always be supported by like minded people, provided they are properly enlightened. This is the only way to progress towards a United World.

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Toward A Non-Nuclear World : Scientists and a Comprehensive Nuclear Test Ban*

PROF M ZUBERI

Professors back from secret missions
Resume their proper eruditions,
Though some regret it;
They liked their dictaphones a lot,
They met some big wheels, and do not
Let you forget it.

-- W.H. Auden

"The physics of atomic and thermonuclear explosions is a genuine theoretician's paradise."

-- Andrei Sakharov, *Memoirs*
(London, 1989), p. 96.

The nuclear world is configured the way it is partly because the nuclear arsenals emerged from incremental decisions shaped by perceived technological opportunities, bureaucratic struggles and organisational conflicts between interests represented by the armed services, defence industries and weapons laboratories. It seems plausible simply because of familiarity. At the level of strategic doctrines, weapons procurement and war plans, the nuclear world is the product of partial rationalities and organisational compromises. It is a *fait accompli* which has occurred silently over a considerable period of time. Nuclear militarism is not a functional prerequisite of a socio-economic system and this is a source of hope. Precisely because the nuclear apparatus is a contested outcome and not a functional necessity, it is open to change provided the paradigm of nuclear deterrence loses its grip over the imagination of the strategic community in the industrialised circumference of the globe.

According to Lord Zuckerman, scientists in the weapons laboratories have created "a world with an irrational foundation, on which a new set of

*This paper was presented by Prof M Zuberi, a senior professor at the Jawaharlal Nehru University, at the U.N. Meeting on Non-proliferation and other Disarmament Issues in the Asia-Pacific Region : Trends and Challenges held on 27-29 January, 1992 at Kathmandu, Nepal.

political realities has, in turn, to be built." Scientists have become alchemists casting their malevolent spells from their laboratories.¹ Many scientists were hopeful that technology would abolish war. They tended to reason from necessity. The technology of death would become a benevolent despot presiding over human destiny. Thermonuclear weapons thus embodied not only a mortal peril but also a hope of salvation. There were, of course, many eminent scientists who championed the cause of nuclear disarmament. Albert Einstein, Niels Bohr, Leo Szilard, James Franck and many others articulated their anticipatory apprehensions about the perpetual threat to humanity represented by indefensible weapons.

II

Nuclear detonations are a grim reminder of the nuclear peril. There have been more than 1,900 nuclear explosions between 1945 and 1990, or one explosion every 9 days. The scorecard for the United States is one explosion every 18 days. The former Soviet Union's record since 1949 is one explosion every 21 days; of Britain since 1952, one every 331 days; of France since 1960, one in 61 days; and of China since 1964, one explosion every 264 days.² No disarmament measure has been so persistently and so passionately pursued as a comprehensive nuclear test ban. The UN General Assembly has adopted over 70 resolutions on the subject. The NPT Review Conference of 1975, 1980, 1985 and 1990 emphasised the urgency of such a ban. Dr. Eklund, Director General of the International Atomic Energy Agency, said at the 1985 Review Conference: "The non-proliferation regime can only survive on the tripod of the NPT, effective international safeguards, and a CTBT treaty. The vital third leg is still missing as it was five years ago."³ The 1990 Review Conference ended without adopting a final resolution. A CTBT was unacceptable to the United States. The attempt by a number of countries to turn the PTBT into a comprehensive test ban treaty at the Conference of January 1991 ended in failure because of opposition from Britain and the United States.⁴ Kathleen Bailey of the US Arms Control and Disarmament Agency said in December 1989: "If the U.S. is forced to choose between its own national security and its nuclear testing programme versus the survival of the NPT - which we would dearly like to see - the US would choose maintenance of its own security and therefore its own nuclear testing programme."⁵

President Bush approved a National Security Council Memorandum entitled *US Policy Statement on Nuclear Testing* in January 1990 which stated that nuclear weapons were critical to American national security and therefore "the United States must be free to conduct nuclear tests to ensure the credibility of our forces." A comprehensive test ban had to be viewed "in the

context of a time when we do not need to depend upon nuclear deterrence to ensure international security and stability, and when we have achieved broad, deep, and effectively verifiable arms reductions, substantially improved verification capabilities, expanded confidence-building measures, and greater balance in conventional forces."⁶

The *UK 1990 Statement on the Defence Estimates*, while acknowledging a CTBT as a long-term goal, states that for the foreseeable future British security would continue to depend on nuclear deterrence and "there will be a continuing requirement to conduct underground tests to ensure that our nuclear weapons remain effective and up-to-date." France and China are not parties to the CTBT. President Mitterand has maintained that "one cannot have weapons of which the potential efficacy...cannot be evaluated through tests." The Chinese Vice-Foreign Minister stated in 1987 that the United States and the Soviet Union "should take the lead in halting immediately the testing, production and deployment of all nuclear weapons." The former Soviet Union, on the other hand, had supported a comprehensive test ban.⁷

III

"Nuclear explosives", says Freeman Dyson, "have a glitter more seductive than gold to those who play with them. To command nature to release in a pint of pot the energy that fuels the stars, to lift by pure thought a million tons of rock into the sky, these are exercises of the human will that produce an illusion of illimitable power."⁸ The awful beauty and a grandeur of nuclear explosions have been a recurrent theme in the memoirs of the scientists who participated in the Manhattan Project. Victor Weisskopf, reflecting on his participation in the Project, says that he is not sure whether his decision to join it was solely based on the fear of the Nazis acquiring nuclear weapons. "There was certainly a feeling of pride in being part of a unique and sensational enterprise. Also, this was the chance to show the world how powerful, important, and pragmatic the esoteric science of nuclear physics could be."⁹ Andrei Sakharov is almost lyrical about the theoretical beauty of his work leading to the Soviet thermo-nuclear bomb. The immensity of the project and the sense of patriotic urgency making him regard himself as a "soldier in this new scientific war" seemed to overwhelm him. In articulating his feelings, he is representing the experience of scientists in all the nuclear weapon powers. The Promethean pride of a scientist engaged in almost God-like activity is reflected in his words: "A thermonuclear reaction - the mysterious source of the energy of sun and stars, the sustenance of life on Earth but also the potential instrument of its destruction - was within my grasp. It was taking shape at my desk."¹⁰ An American scientist recently expressed similar views. "This is the closest you get to playing God", he said and continued, "stars

and bombs are a lot alike, but you don't get to design a star and see if it'll go supernova when you want it."¹¹

The American nuclear testing activities have been conducted in a comparatively open manner; and there has been a rancorous debate within the American scientific community since the mid-1950s on the test ban issue. Edward Teller and Hans Bethe have been the protagonists in this debate. And scientists in the weapons laboratories have been passionately involved in it. This debate has revealed the limitations of scientific objectivity and the attempt of weapon scientists to present their politically motivated arguments in vestments of scientific virtue.

During the debate leading to the Partial Test Ban Treaty, Edward Teller was "brilliant in inventing excuses and ways it could be circumvented, far beyond any reaches of common sense." The United States government spent enormous sums to meet his objections.¹² Teller maintained that techniques of evasion would increase faster than techniques of detection of violation of a ban. In 1958 he promoted the idea of closing the Straits of Gibraltar with a nuclear explosion. As the Mediterranean Sea gradually rose, it could be used to irrigate the Sahara desert.¹³ Teller also maintained that "one will probably not long resist the temptation of shooting the moon." A nuclear device could be set off relatively close to the moon or one might actually shoot at the moon in order to "observe what kind of disturbance it would cause, and ascertain what one can judge about the consistency of the lunar surface, perhaps down to some depth."¹⁴ He was also one of the promoters of the neutron bomb in his campaign against a nuclear test ban treaty.

Teller described the PTBT as a "treaty directed against knowledge". In his testimony before the Senate Committee on Foreign Relations in August 1963 he maintained that the treaty called into question the American ability to extend military support to friendly countries: "What if the Chinese march over the Himalayan passes....we still could close the Himalayan passes by nuclear explosives," but the treaty prohibited such activity.¹⁵ Roy Woodruff of the Lawrence Livermore National Laboratory challenged the scientific integrity of Teller and his protege Lowell Wood for their involvement in overselling the X-ray laser, a major component of the Strategic Defence Initiative.¹⁶

Teller and Sakharov are popularly known as 'fathers' of the American and Soviet H-bombs. But unlike Teller, Sakharov became a passionate champion of a nuclear test ban. He has chronicled his repeated efforts to stop testing because of his concern for posterity and his conviction that atmospheric testing was a crime against humanity. His failure to stop testing of two

broadly similar explosions to be conducted by two rival laboratories was a turning point in his career. "A terrible crime was about to be committed, and I could do nothing to prevent it", he writes. "I was overcome by my impotence, unbearable bitterness, shame and humiliation". He devoted himself wholeheartedly to stopping nuclear test.¹⁷

The trilateral negotiations for a comprehensive test ban during the period 1977-79 came very close to hammering out a draft agreement. The main argument in favour of a ban was furtherance of nuclear non-proliferation. The new argument advanced by some scientists in the weapons laboratories was the issue of the reliability of the nuclear stockpile. It was maintained that periodic testing was necessary for this purpose. The interesting fact about this scientific controversy was the support for a test ban by Norris Bradbury, former director of the Los Alamos National Laboratory, Carson Mark, former head of the Theoretical Division at Los Alamos, Richard Garwin, a well-known authority on nuclear technology, and Herbert York, former Director of the Livermore Laboratory. These experts, supported by Hans Bethe, maintained that testing was not necessary to ensure stockpile reliability. Roger Batzel and Donald Kerr, Directors of Livermore and Los Alamos Laboratories respectively, however, insisted that testing was absolutely necessary.¹⁸ This disagreement showed that retired and incumbent directors of weapons laboratories could have a serious dispute over a supposedly technical matter and confirmed the old American adage, "Where you stand is where you sit."

The American nuclear warheads are designed to have a shelf life of about 25 years. As for stockpile reliability, only 8 of about 300 tests conducted in the United States since 1970 were designed to evaluate defects in stockpiled warheads and only one warhead was remanufactured.¹⁹ Herbert York represented the United States at the trilateral negotiations. He reports that the consensus among the experts was that the nuclear establishments were exaggerating the problem of reliability and that regular inspections and non-nuclear tests would be sufficient for the purpose. The Regents of the University of California which manages the American weapons laboratories resented the unwarranted political intervention by the laboratories on a sensitive issue and it caused quite a stir on the campus which persisted for several years. Another argument against the test ban was the continued need to preserve a core of weapons design experts at the laboratories. York also reports that Victor Macklen, Deputy Chief Scientist in the British Ministry of Defence, was part of a larger group of insiders dedicated to thwarting the conclusion of the test ban treaty and he adds that "working things out in Washington was more difficult than dealing with the Russians", who were serious about a test ban.²⁰

Paul S. Brown, who heads the Arms Control office at the Livermore Laboratory, insists that nuclear weapons research and development supplemented by testing is necessary for the credibility of the American nuclear deterrent. A powerful argument in favour of testing is the fourfold reduction in the relative total yield of the American stockpile between 1955 and 1985 which has resulted from tests conducted over the period.²¹ Brown has also maintained that the most important benefit from testing is the maintenance of the experience level of weapons scientists so that they can take proper decisions concerning all issues relevant to nuclear weapons technology.²²

Despite these arguments, there is a general consensus that a comprehensive test ban with a ten-kiloton threshold can be verified with the existing level of seismological competence; some experts even suggest that a much lower threshold should be incorporated in a comprehensive test ban.

IV

Scientists have developed a web of rationalisations for their involvement in the arms race. "The peculiarity of science", says John Ziman, "is that principles which are used to excuse social irresponsibility have been elevated into a more or less coherent ideology."²³ The general consensus among scientists has been that 'Truth sets its own agenda'. Belief in the pursuit of Truth for its own sake was bolstered by the ideology of progress and science was equated with benevolent advancement of mankind. Robert Oppenheimer's teacher, P.W. Bridgman, maintained that "the scientific method is doing one's damnest, no holds barred." With the advent of weapons of mass destruction there is a conflict between the old ideology of progress and a new ideology of limits.²⁴ Curiosity without compassion can no longer be permitted in the modern age. Max Born, teacher of Oppenheimer, Teller and many other atomic scientists, sagely observed: "Intellect distinguishes between the possible and the impossible; reason distinguishes between the sensible and the senseless. Even the possible can be senseless."²⁵

Nuclear deterrence has been the security paradigm of the nuclear age. Its focus on hardware, toughness, imprecision and abstract style of reasoning have added to its appeal. The strategy of nuclear deterrence combines logical opposites. It connects prevention of war with the capacity to fight it. This intertwining of pacific goals and total war strategy is the major attraction of nuclear deterrence. It confers dignity on thermonuclear weapons and makes people feel innocent. By taking the infinite into human sanctions, nuclear deterrence becomes a mutation of pacifism. An additional bonus is the smaller price tag of these weapons of mass destruction compared to their conventional cousins.

Nuclear weapons are well entrenched not only in their silos but also in the structure of international politics. The Cold War really amounted to diplomacy by the nuclear threat; and the political utility of compellent nuclear threats has been repeatedly demonstrated. The dissolution of the Warsaw Pact without resort to armed force was certainly facilitated by the presence of nuclear weapons in Europe. The caution with which major powers have responded to the disintegration of the former Soviet Union has also been partly due to the sullen presence of these weapons on its vast expanse.

Addressing the Soviet General Staff in Moscow in November 1990, Michael Quinlan, the British Permanent Under-Secretary for Defence, explained NATO thinking on the nuclear issue and described nuclear weapons as the "keystone of an arch of freedom from war".²⁶ This belief in the pacifying role of nuclear weapons is a major hurdle in the achievement of a comprehensive nuclear test ban treaty. But what kind of legitimacy a non-proliferation regime can claim to have when even after the dissolution of the Warsaw Pact and the disintegration of the Soviet Union, the nuclear weapon powers fail to honour their commitments, however hedged they may be, to stop all nuclear tests?

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Jammu and Kashmir Operations, 1947-48 : The Other Version

LT GEN VIJAY MADAN, PVSM, VSM

The creators of Pakistan had accepted that violence had a place in their armoury even for establishing their new country. The direct action call, issued by Mr Jinnah and endorsed by the Muslim League, could not have been sounded by a politician and party queasy about the use of force. The founding fathers of Pakistan and their successors, whatever their political leanings, have remained single mindedly wedded to this belief. Yet it would be unfair to single them out for any condemnation on this score. On the contrary, past and present leaderships of all countries have subscribed to it and the foreseeable ones will continue to do so. Those who closed the option of using force or gave the impression that this option was best shied away from by arriving at any compromise whatsoever, mostly came to grief.

Pakistan put its nascent military thought into action almost immediately after its creation. Use of force to coerce the State of Jammu and Kashmir into acceding to the newly created State of Pakistan was an option taking birth in the minds of its leaders, perhaps even before Pakistan was created on 14 August 1947. That a few Muslim officers of the pre-partition Indian Army had more than social contacts with the Muslim League leaders, is well known. It is also possible that this liaison was encouraged by some British officers of the then Indian Army. Be that as it may, the fact is that Pakistan decided to use force to obtain a decision, when most other states in similar situations would have been wary of doing so.

The moral or the legal aspects of Pakistan's decision need not detain us. What must be appreciated however, is the sheer audacity of Pakistan trying to annex the state of Jammu and Kashmir by force at that point in its history. Very few soldiers or political policy makers would have risked such an adventure, given the state of Pakistan's military capabilities and its internal turmoils at that time. What Pakistan did, was from its point of view a well considered decision. It was, nevertheless, a very grave risk which almost came off. That it did not succeed completely was due to the alacrity of the Indian Army. Credit must be given where credit belongs and credit must go to those Pakistanis who atleast assured that a large part of the state of Jammu and Kashmir still remains under Pakistan's occupation.

Lt General Vijay Madan is the Commandant of the College of Combat, MHOW, India.

The risks involved and the measures taken to offset them as best as possible, have to be appreciated in the context of the state of Pakistan's Armed Forces at the time of partition. The division of the British Indian Armed Forces between India and the newly created State of Pakistan is a subject of study by itself. Suffice to say that once the decision was taken to do so, largely on the insistence of the Muslim League's leadership, the full scale of Pakistan's handicaps became evident. To start with, in the old British Indian Army, there was not a single purely Muslim unit. Thus, of the elements allotted to Pakistan, none came as complete units except for some transport companies. The non-Muslim personnel of units allotted to Pakistan which comprised almost half of each such unit, specially in the Armoured Corps and the Infantry, were moved over to India while the Muslim elements of some of the components allotted to India were sent to become parts of units allotted to Pakistan. A number of units allotted to Pakistan were located in the territory of what was to become the Indian Union and vice versa. Besides, a fairly large portion of the old Indian Army, including that allotted to Pakistan, was still serving overseas in the Middle East, Malaya, Burma and even Japan. Concurrently, a number of headquarters and units raised during the Second World War had either been demobilized or were under the process to do so. The command and control set up for the Pakistan armed forces was almost completely non-existent. To add to this confusing and complex situation, Army units were being called up for internal security and refugee protection duties almost round the clock. There was also an acute shortage of officers, specially with experience at the unit commanders level and above.

The procedure to divide the armed forces was arrived at on 30 June 1947, leaving just 45 days for the bifurcation. A remarkable and a magnificent Army which had taken almost two hundred years to build, was now stretched out on the dissecting table of partition for a dirty and pitiless butchery, to be cut into two separate parts; soon to become implacable opponents of each other. Out of this surgical separation, Pakistan received in various stages of mutilation :-

(a) The old Northern Command Headquarters at Rawalpindi. This, after being suitably augmented by staff arriving from the General Headquarters (GHQ) at Delhi was to eventually become the Pakistan Army Headquarters or GHQ and move to Karachi. Lt Gen Sir Frank Messervy, the then General Officer Commanding-in-Chief Northern Command, was nominated as the first Commander-in-Chief of Pakistan on 30 July 1947.

(b) The new Pakistan Army Headquarters (GHQ) got control of the following Headquarters and formations¹:-

- (i) *Lahore Area*. With under Command 14 Parachute Brigade.
 - (ii) *Rawalpindi Area*. With under Command 10, 25 and 114 Infantry Brigades.
 - (iii) *Peshawar Area*. With under Command Peshawar, Kohat and Thal Brigades and an armoured brigade.
 - (iv) *Waziristan Area*. With under Command Razmak, Bannu, Wana and Gardai Brigades.
 - (v) *Sind Area*. With under Command Zhop Brigade.
 - (vi) *East Pakistan Sub Area*. Hastily created out of the limited military elements located in that geographical portion of the erstwhile Bengal Province of the British India.
- (c) Of the combat and supporting Arms, ie, the Armoured Corps and Infantry in the former category and the Artillery, Engineers and Signals in the latter, Pakistan received the following :-
- (i) Six armoured regiments.
 - (ii) Eight infantry regiments; which accounted for thirty three infantry battalions.
 - (iii) Eight artillery regiments of all types.
 - (iv) A major portion of one engineers group.
 - (v) A complement of 98 officers including 35 British officers, 165 VCOs (later called JCOs) and 6,766 Jawans of various trades from Signals. These were quickly formed into signals units and allotted to various formations.
- (d) Although the Combat Arms and Supporting Arms had shed a large number of their non-Muslim elements and consequently absorbed Muslim elements coming from units allotted to the Indian Army, the transport units of the Royal Indian Army Service Corps allotted to Pakistan were wholly Muslim. The same could not be said of the other Services ie the Medical, the Electrical and Mechanical Engineers and the Royal Indian Army Service Corps (RIASC) units, more so those handling supplies and petroleum items. Interestingly enough Pakistan got a large share of Remount (Animal) units; 28 vis-a-vis India's 29.

One can say with some certitude that more than one major decision per day with long and short term implications was taken from 30 June 1947

onwards by the newly formed Pakistan Higher Command. Not the least being to quickly re-organise the various units by inducting into them the Muslim elements arriving from what was to become India. A most commendable performance by any standard. The armoured units were reorganised with comparative ease since the number of Muslim squadrons in the now old Indian Army were adequate enough to allot them squadron-wise to the six regiments allotted to Pakistan. Of the artillery, Pakistan got those regiments which were composed of largely Muslim elements. Here too the problem was similarly easier to solve. The greatest problem arose in the case of infantry units. From the eight infantry regiments allotted to it, Pakistan had to shed sixty-four non-Muslim companies as well as those Muslim personnel, whose homes being in India had the choice of serving in the Indian Army, which many did. *This provision applied to all Arms and Services. In return only twenty-nine companies worth came to Pakistan.* To make up these grave deficiencies, normal releases were stopped and rapid recruitments, including calling back to the colours of recently released personnel was ordered. Another major difficulty was the absence of any East Pakistanis (now Bangladeshis) in the Infantry. Since restrictions had been placed on both India and Pakistan as part of the 30th June agreement mentioned earlier not to raise new regiments during the period of reconstitution. Pakistan approached the Joint Defence Council of India and Pakistan to raise a new regiment for East Pakistan. Permission was given to do so at the end of November 1947. The first battalion was raised on 15 February 1948 from the two Bengal Muslim Pioneer companies and Muslim optees from the Bihar Regiment allotted to India. This was done at the time when the Indian Army was fighting the Pakistan invaders in Kashmir. If Pakistan mistook this as a signal that India regarded the conflict in Kashmir to be disconnected from the rest of Indo-Pak issues where business as usual would prevail, it cannot be blamed for it. The fact that the raisings were accepted by the Indians perhaps due to a lack of diplomatic sophistication, influenced by British advice, is immaterial.

So much for the Pakistan Army. The state of its fledgeling Navy and Air Force was worse and can be recorded briefly. The Pakistan Navy inherited two frigates, two sloops, four fleet mine sweepers, two trawlers, two motor mine sweepers and four harbour defence motor launches.² As for the Air Force it got two fighter squadrons, one transport squadron and a flight each of Harvards for communications and Austers for Air observation posts duties. Sixteen Tiger Moths were also allotted for training. Historians of the Pakistan Air Force however, claim that the number of aircraft which actually came to them was much less. Thus, instead of 35 Tempest aircraft in the two fighter squadrons only 16, of 12 Dakotas only eight, of 29 Harvards only 20, of 10 Austers only two and of 16 Tigermoths only 10 were in fact received. One can dispute these figures and contentions; what cannot however, be

ignored was the poor serviceability of the aircraft; as low as 50 per cent. The Pakistan Air Force (the Royal Pakistan Air Force as it came to be named then) saw action in the Kashmir operations. During the period 1947-1948 it claims to have flown 437 sorties dropping 500 tons of supplies at Bunji, Skardu, Gilgit and Chilas. No fighter aircraft were used, however, during this entire conflict.³

Such being the condition of the Pakistan Armed Forces, the decision to use force to annex the State of Jammu and Kashmir was a very high risk venture, if viewed in isolation from some other factors. Viewed differently, it was a rational act which almost came off. Pakistan obviously took the decision after fully appreciating that :-

(a) Jammu and Kashmir, although having signed a standstill agreement with Pakistan not with India was indecisive about its future relations with the two dominions and as such had no political connection with India. Such a connection could only be made by the Maharajah's decisions and by no other authority, according to the India Independence Act. The Maharajah's antipathy to the Congress and personally to Nehru was well known.

(b) There was no direct road or rail communication between the State and the new Indian dominion. The Kashmir Valley was primarily connected through the Jhelum valley along the almost all the year round usable road to Rawalpindi in Pakistan via Kohala. Alternatively, along the same road to Abbottabad in Pakistan via Domel and Muz-zafarabad. The other access to the Valley was across the 9000 feet high then Banihal tunnel from Jammu which in turn was again mainly joined with Sialkot in Pakistan. The only railway line into the State with its terminus in Jammu also came from Pakistan. There was a track of sorts connecting Pathankot in India to Jammu via Madhopur, Kathua and Samba. There were no bridges over various dry rivers although there was a light bridge over the river Ravi headworks at Madhopur. This was an underdeveloped tortuous route largely unfit for large scale military traffic. The movement of all essential supplies like petrol, food and so on for the entire civil population of the State would have also to move on this axis. Thus, even if India decided to interfere, physically it appeared impossible that a major effort could be sustained on this axis.

(c) The Jammu and Kashmir State forces, an excellent force, had been fully stretched in the Sudhan tract of the State ie the Mirpur-Kotli-Poonch area. The Sudhans, a fighting community of Rajput Muslims live on the either side of the border of Jammu and Kashmir with

Pakistan. They formed a large portion of the Punjabi Muslim force in the old Indian Army as well as the Muslim element in the Jammu and Kashmir State forces. As a result of the communal riots in the Punjab plains the people of the Sudhan tract were also affected. The instigation from the Muslim League and its local surrogates in the State was writ large in these troubles. The State forces were further weakened by subversion of their Muslim elements. This was to be the proverbial last straw which broke their back, and weakened them irreparably specially when the Pakistan tribal raiders entered the State from Abbottabad in the last week of October 1947.

(d) The heartland of the State is the Kashmir Valley itself, however, remained completely unaffected by the communal virus. Un-impressed by Pakistan's appeal to the religious sentiments of the majority community in the Valley, the Muslims of the Valley were infact horrified at the barbarities being perpetuated outside their mountain fastnesses by the citizens of an erstwhile common country on each other. There is no gain-saying the fact that the Kashmir Valley was the only island of sanity in North India. This did not suit Pakistan, more so since the majority of State's population lived here. More importantly, this population had been completely anti-Muslim League, almost to a man behind Sheikh Abdullah and his National Conference. This population had been particularly cool towards Mr Jinnah while always warm towards the leaders of the Congress whom they closely identified with Sheikh Abdullah and thus their own aspirations. These aspirations were directed against the Maharajah's rule which the local population not only regarded as an extra-valley dispensation and therefore non-Kashmiri in nature but also closely allied with the Punjabis and the people of the North-West Frontier province who had been special baiters and exploiters of the Kashmiri Muslims. These Punjabi and Frontier Province Muslims were for the Kashmiri Muslims synonymous with the population of the Western and South-Western fringes of the State bordering the newly created Pakistan. Thus Sudhan and others who were of the same stock by and large as the Punjabi Muslim or Hindu or the Dogras were exploiters. Racially, linguistically, culturally, in fact in every respect, the Kashmiris had very little in common with their neighbours outside the Valley. Yet they formed the largest single group of the State's population. This population, and of course the Maharajah, who as mentioned earlier was the sole legal authority empowered to decide his State's future, had to be coerced into joining Pakistan.

A conventional army action was legally in-appropriate. With the Pakistan armed forces being in the condition they were in, it was also militarily

not feasible. The use of tribals from the trans-Durrand Line, suitably boosted up, led and controlled by Pakistan Army personnel offered an excellent alternative. The plan was in all probability designed to stampede the Maharajah into acceding to Pakistan and follow up by moving a small force of regulars into the valley to take control. There are no clear cut confirmations of this inference only incidental allusions which cannot be dismissed. It was the most appropriate plan possible. Ian Stephens, then editor of the *Statesman* records Lord Mountbatten's remarks to him, on the night of 26 October, when the tribal invasion was on; "at a dinner at the Government House in Delhi, Mr Jinnah, Lord Mountbatten assured me, was waiting at Abbotabad, ready to drive in triumph to Srinagar if it succeeded". Mr Stephens of course records as a footnote on the same page, "that subsequent inquiries showed Lord Mountbatten was wrong, and that Mr Jinnah spent all the latter part of October in Karachi or Lahore".⁵ We may accept Mr Stephens accusing Lord Mountbatten of indulging in allegations against Mr Jinnah, although moving from Lahore or Karachi to Srinagar was no great problem. Could Lord Mountbatten's observation have been a deduction based on reports that a Pakistan Army contingent was even then ready to move to Srinagar on orders? These orders never came because the Indians reacted unexpectedly fast and took a greater military risk. A risk made feasible firstly by the raiders being unexpectedly and inordinately delayed at Uri by the gallant resistance of a small contingent of the Jammu and Kashmir State forces under their Chief-of-Staff himself. Secondly, the invaders stopped at the town of Baramula. This was an uncalled for pause; at least so it appeared at that time. The only plausible reason put forward was that the tribal Laskars could not resist the overwhelming temptation of plunder and rape which the town offered. This explanation has a major flaw; with the entire city of Srinagar just a few hours away unprotected the appetite of the invaders could not have been so whetted by denials caused by prolonged and arduous campaign that they could not wait being satiated. There was obviously some other reason for this halt. The inference that the invaders were prevented from going forward as part of the operational plan which depended on, firstly frightening the Maharajah into acceding to Pakistan and thus enabling regular Army units to rush in and secondly did not want that the tribal lust be quenched at the expense of Srinagar necessitated a wait at Baramula till Srinagar was under control. Such an inference is supported, albeit in a round about way by Major General Fazal Muqueem Khan's observation that; "At the crucial moment when they had almost reached Srinagar, their leaders unwisely decided to call a conference of tribal and Kashmiri leaders at Baramula".⁴ What was the purpose of this conference? Could it have been to organise and prepare for the arrival of the regulars, with or without Mr Jinnah at their head, who were to have been on the move into the Valley, in conjunction with the expected accession to Pakistan by the beleaguered ruler? And who was

this overall leader who could order tribal leaders and Kashmiri leaders to a conference? And thereby hangs a tale, for within the answer to this question, lies the third pointer confirming the inference of Pakistan's plans. The overall commander of the invading force was a shadowy figure who went around under the pseudonym of "General Tariq" -- a name culled out of West Asian military history - a great military commander who lead the Arab forces into Spain and Gibraltar in medieval times. The Pakistani obsession with the exploits of this hero was again evident in the code-name they gave to the infiltration operations into the Valley in 1965; Operation "GIBRALTAR". In short a continuum of their efforts of 1947-48, reverting back to the commander of the invaders. A certain Colonel Mohammad Akbar Khan of the Pakistan Army was the holder of both the Pseudonym and the actual command. He, in subsequent years, rose to be a Major General but a bitter one at that. He held the Pakistani politicians, especially Mr Liaquat Ali Khan and his senior Pakistani and British military advisers responsible for not having done militarily more than what they did at that time in the Valley. The state of Pakistan Army has already been described; it would be unfair to accuse Major General Akbar Khan of having expected an all out war being waged against India. What he was surely expecting was the arrival of the Pakistani contingent alluded to earlier. That it did not turn up was certainly due to the arrival of the Indian troops post haste by air and the changed political scenario, as well as perhaps due to the Pakistani leadership developing cold feet. That the then Colonel Akbar Khan alias "General Tariq", must have beseeched, cajoled, threatened his superiors in Rawalpindi, Abbottabad, Peshawar, Murree, Karachi or where-ever is more than plausible. This whole thing took a few days; fateful days for the unfortunate citizens of Baramula on whom the halted tribals now turned their bestial attention; fateful for Srinagar and the rest of the Valley who were saved a similar fate; fateful for the Indian Army because it got the very vital time it needed to build-up and fateful for Pakistan, for this one blunder lost them the Valley. Major General Akbar Khan never forgave his superiors. He was later implicated and arrested alongwith an Air Commodore and eleven others in what came to be known as the 'Rawalpindi Conspiracy Case'. The aim of this conspiracy, as stated in the charge-sheet, was to overthrow the government of Liaquat Ali Khan, arrest and possibly eliminate him and some military leaders. In 1955 the remaining portions of the sentences awarded to the accused officers were quietly remitted by the Governor General. Later Major General Akbar Khan, was possibly one of the group of retired and serving officers who gave advice to Mr Bhutto in 1965 - much to the chargin of the then Army Chief, General Musa - and thereby helped him to pressurise Field Marshal Ayub Khan on the launching of operation "GIBRALTAR", in the valley. He was rewarded, perhaps for services so rendered, by being made the Minister for National Security in Mr Bhutto's government formed after the 1971 war.

By the time Pakistanis got their act together and decided to go ahead with the operations, things had changed on the ground. They had completely miscalculated the Indian ability to mount a massive air-lift in so short a time. Many of them still continue to do so. Mr Ian Stephens, who later was the official historian of the Pakistan Army from 1957 to 1960, believed at the time that the Indians must have had a well prepared military plan to back-up an equally well prepared and sinister political intrigue on Kashmir, had to later record that, "that was this writers view at the time; he could not believe that so effective an airborne operation had been improvised. Yet exhaustive inquiries later have disclosed that on this point he was wrong. No evidence in support has been got; and specific written assurance are on record from senior British officers of the Indian forces which some Pakistani officers, then still in Delhi awaiting transfer, tend to confirm - that the airlift was an impromptu affair".⁶

The arrival of Indian troops in Srinagar drew the Pakistani Governor General, Mr Jinnah's personal ire. He ordered the officiating C-in-C, General Gracy to order the Pakistan Army into the State. General Gracy, was a greater friend of Pakistan than some emotional Pakistani commentators of that time would have us believe. Jammu and Kashmir was now legally a part of India. Any Pakistani military action could be construed as an action against India and could legitimately call for an Indian military reaction against Pakistan, even outside the geographical boundaries of the Jammu and Kashmir State. Pakistan Army, even though able to send an unopposed force into the State, could certainly not face an all-out Indian challenge. The Indian Army was at that time in a comparatively better shape than the Pakistan Army was or so it seemed. In any case, apart from militarily challenging India's rights in the State there was nothing more the Pakistan Army could now do unless they knocked out the Srinagar airfield or moved down a large force by the Jhelum Valley axis, at a rate faster than the Indian build-up. This was not possible. Pakistan's military plight has already been highlighted, so whatever the Pakistan Army could do was already being done by the elements already in Kashmir, namely tribals, numerous Pakistan Army personnel and the deserters from the State forces. General Gracy's threat of withdrawing British officers, who were numerous in the Pakistan Army, was enough to cool down Mr Jinnah's military ardour.

After a brilliant opening start the Indians stumbled on themselves after reaching Uri. Instead of heading for Domel and Kohala, they diverted their effort south-westward, for linking-up with Poonch over the Haji Pir Pass. In the event they failed both in doing so and lost the momentum of their drive on the Jhelum Valley road towards Domel. The bewildered Pakistanis noted with great relief the manner in which the Indians were squandering away

surprise and momentum. They promptly rallied the fleeing irregulars, their own personnel and tribals and sent them back to man the heights of the Jhelum Valley. The heights of the Uri bowl were to remain the furthest points of gain for the Indian Army in the Jhelum Valley. Winter was now setting in and the Indian efforts were switched to the Jammu sector. Here too it appeared to Pakistan that operations were largely aimed to relieve beleaguered State forces garrisons and hapless non-Muslim population surrounded in these outposts. The Pakistanis too therefore concentrated their efforts in this sector. Again the accent was on tribals and irregulars. The Pakistan Army was still being re-organised. In the meantime another signal, this time a political one, was emanating from the Indian side. Pakistan had toyed with the idea of taking the dispute to the UN on 16th November 1947.⁷ A suggestion to the same effect was perhaps made by Lord Mountbatten as early as first week of November. In the event India went to the UN on January 1st 1948. Pakistan's hesitancy and later giving up of this course was both logical and understandable. Legally it had no standing now in Jammu and Kashmir. Politically, it was not sure of the outcome, which even if favourable to it in this particular case, could be counter-productive when applied to Junagarh, Hyderabad (Deccan) and such other princely states. Some things were inferred by Pakistan as a result of India's complaint to the UN. Firstly, that perhaps India was not politically prepared to enforce a military solution and accept the accompanying hard options that would be required to be then taken. In short, the Indians had no stomach for enforcing decisions by force. Secondly, the Indians were not wanting to enlarge the scope of conflict outside Jammu and Kashmir. The reference to the UN also gave the impression that the Indians were looking for an early cessation of hostilities, which in turn indicated that the Indians were not interested in wasting military effort on certain areas under Pakistan either because these were areas which were apparently pro-Pakistan ie the narrow western and the South-Western tracts; or were inaccessible like Baltistan and the Gilgit agency. The latter had been annexed by Pakistan through the machinations of the British officers of a local levy force called Gilgit Scouts.

The annexation of the Gilgit Province of the Jammu and Kashmir State is a story in itself. The province was taken on a 99 years lease by the British Indian Government from the Maharajah in early thirties and designated as the Gilgit agency. The stated purpose of the lease was to guard against the Russian (then USSR's) expansion into Central Asia, since a strip of the State's territory lay within striking distance of the Russian border. Besides, the Wakhan Corridor of Afghanistan also jutted into the north. The unstated but real purpose however, appears to have been the desire to insulate Jammu and Kashmir from any significant international frontiers. Although the Ladakh region had similar frontiers with Tibet and Sinkiang, but for all practical

purposes these were sterile; Tibet being a buffer region completely controlled by the British between China and Indian Empire. Even so, the British kept an assistant Resident in Leh to keep an eye. To patrol the borders and control the Gilgit agency the British raised the Gilgit Scouts. It was on lines similar to the levies raised for controlling the North West Frontier.

The responsibility of handing over Gilgit to Pakistan was of one man alone; if such individual responsibility can be fixed. That man was a certain Major W.A. Brown. Major Brown had served in Chitral as also for a while with the Tochi Scouts. Earlier on he had been with the Gilgit Scouts for three years. This last qualification perhaps swung the Maharajah's choice of the future commander for the Gilgit Scouts in his favour. The State authorities wanted a suitable officer to oversee the transition of the Scouts from a British force to one under the State authorities, since Gilgit was to return back to its parent State of Jammu and Kashmir. Brown's name undoubtedly must have been suggested by the Political department of the then Government of India. For his Second-in-Command Brown put forward the name of Captain A.S. Matheison, an officer just a little junior to him in age, who Brown had known earlier as the district officer in-charge of the Khassadars in Miran-Shah.

Brown's task as defined to himself and in all probability spelt out by the Political department was to be determined by "what the Maharajah of Kashmir decided to do with his State after partition. The most sensible, if unconstitutional, course would be to take the Hindu and Buddhist areas into India and allow the Muslim areas to go their own way, presumably to Pakistan".⁸ With this as a context, "Brown and Matheison agreed that if the Maharajah did accede to India, they with the help of the Scouts, would stage a coup d'état and hand it over to Pakistan. Details of the operation were planned and the code word fixed for putting it into operation was "DATTA KHEL".⁹

"DATTA KHEL", was a name obviously dragged out of Major Brown's nostalgic association with the Tochi Scouts. Datta Khel was a garrison post of the Tochi Scouts which was constantly harrassed by the Faqir of Ipi, who at one time claimed or had the sympathies of the Indian National Congress and Badshah Khan. In May 1942 Datta Khel was surrounded by the Faqir's Lashkar. The garrison post was surrounded for over three months and saw some heavy fighting, including the shooting down of an RAF plane. The siege was finally broken, as was the Faqir of Ipi himself and Datta Khel passed into the history of the Tochi Scouts and the memory of Major Brown. A "Datta Khel" in reverse was now planned in Gilgit.

On 14 August with the British paramountcy over Jammu and Kashmir

lapsing, Messers Brown and Matheison were no more than a couple of European mercenaries in the employment of an Indian ruler. How they planned to repay the salt of their master, the Maharajah has already been told. There were however, three hurdles to be crossed. Firstly, the new Governor of Gilgit, Brig Ghansara Singh appointed by the Maharajah's Government took over all the political and military functions, including the control of the Gilgit Scouts on 1st August from the last British Political agent, Lieutenant Colonel Roger Bacon. For all practical purposes, therefore, he was the immediate superior of Major Brown. His future caused Brown some concern, since the Governor's physical elimination would not have gone off well with Brown's actual bosses i.e. the Political Department. He had to be removed but not killed. Although, Brown's act of disloyalty to the Maharajah's Government could be explained away as having been motivated by a desire to save the Hindu and Sikh population of Gilgit, the killing of the Governor could not be reconciled with the publicly stated purpose of the coup. The second problem was the presence at Bunji, South of the Indus, of the 6th Battalion Jammu and Kashmir Infantry, a force equal in numbers to the Scouts but better armed, with light and medium machine guns and 2 and 3 inch Mortars. The Scouts had only rifles and some Vickers machine guns for post defence. There was a ray of hope however for Brown; one company of the battalion and the Commanding Officer, an elderly man, were Muslims whose loyalty had been subverted. The Muslim company commander himself was one of the few Gilgitis in the Kashmir Army.

The last and perhaps to some extent the most dangerous hurdle was the presence of an underground Liberation Front aiming for complete independence. The members were powerful people including one Shah Rais, an ex-Subedar of the Gilgit Scouts and a relative of the Rajah of Gilgit.

The coup d'etat took place on 31 October 1947; after the accession of the State to India a few days earlier, consequent to the tribal invasion. The morning of 30th October was spent in negotiating the matter with the Governor. He would not give in. On the evening of 31 October, Brown sent the Code Word to Matheison and "DATTA KHEL" was sprung. By next morning the Governor who offered personal resistance had been taken into custody. The Scouts cut off the telephone lines to Bunji and Srinagar. A platoon deployed at a place called Bhup Singh Pari where the Bunji-Gilgit track ran along a precipice. Another force held the Gilgit bridge while some detachments took over the town and removed the Hindu and Sikh population to refugee camps. Brown also expected some reaction from as far away as Srinagar.

Meanwhile the Liberation Front started taking control in the name of a Republic. There may have been no pro-India feeling but there was no urge

to join Pakistan either. Brown argued against independence with Shah Rais but to no avail. So, for the time being, he went along with the Front leaders. In the meantime he sent a message to the Premier of the NWFP, Khan Abdul Qayum Khan and to Roger Bacon, now the political agent at Khyber informing them that a coup d'état in favour of Pakistan had been carried out by the Scouts and the Muslim elements of the State forces. He asked for the appointment of an immediate authority from Pakistan. There was of course some presumption and some twisting of facts. The State forces battalions had yet to show their hand, unaware as they were yet of the situation in Gilgit. As for the coup, it was mostly by the Scouts and that too largely under the impression that a free Gilgit was the objective. Be that as it may, this was soon put right. The Muslim Company of 6 Kashmir Infantry finally defected and joined up the Scouts at Bhup Singh Pari. It was soon followed by an out of breath Commanding Officer of the Battalion who arrived huffing and puffing at the same place with the keys of his battalion's magazine. There were some clashes with the rest of the battalion now demoralised by defection. The Scouts made a foolhardy attempt to cross the Indus and storm Bunji. This was unnecessary, since the battalion had dispersed and taken to the mountains some to reach back to Skardu others to die. Perhaps the Gilgit Scouts were encouraged in such forays, both to keep them from any mischief against the Hindu and Sikhs huddled in the refugee camps, as well as to prevent the Liberation Front Government from consolidating its military position with their help. It must be said to the credit of Major Brown that the refugees were not harmed nor the Governor abused in any way. Major Brown's position vis-a-vis the Liberation Front Government was getting weaker. A third message was sent to Peshawar on 13 November. Finally on 16th October Khan Sahib Mohammad Alam of the Provincial Civil Service of the NWFP arrived on the Gilgit air strip and took over as the political agent. Brown had maintained law and order and in the true traditions of European mercenaries of an earlier age changed the colour of his coat. His success in saving the lives of non-Muslims and the Governor - a very commendable act indeed - was reported upon by the British High Commissioner in Karachi most favourably. The Government of the Republic of Gilgit set up by the Liberation Front just packed up and the Gilgit episode came to its end. It is doubtful whether the Government of India knew about these dramatic events at that time. Even less likely is the possibility of whether any military thought was given by the Indian military authorities to rush to Gilgit as they had done in Srinagar. Discounting all "ifs" and "buts" of history; the loss of Gilgit opened up the subsequent Pakistani attempt into Ladakh, the capture of Skardu and thus most of Baltistan. Their arrival onto the Zojila and also the Gurais and Tillel Valleys. Much later the ceding of territory by Pakistan to China in the North of the Siachen Glacier; the construction of the Karakoram highway and of course the Siachen conflict which continues to this

day were and are the direct offspring of Major Brown's coup d'etat on 31st October 1947.

The immediate aftermath of "DATTA KHEL" however, was the follow up operation of 1948. The Pakistanis moved on Leh from two directions. One by sending small parties up the Nubra Valley and other by going around Skardu, which continued to be held against all odds by a valiant State force garrison. A body of Gilgit Scouts by-passing Skardu and Kargil entered Dras and appeared on the Zoji la. They thus posed a direct threat to the Kashmir Valley. Some others moved over the Burzil Bai Pass into the Kishen Ganga Valley, threatening the Kashmir Valley from Gurais across the Razdhanangan Pass towards Bandipore. Indian reactions were defensive although at times innovative. Attempts to relieve Skardu were most hamhanded and on 14 August 1948 exactly after one year of independence and a continuous siege of nine months the garrison was forced to surrender. The Mehtar of Chitral's brother, no less, was amongst those who had laid siege to Skardu. Thus passed out of Indian hands the strategic areas of Gilgit and Baltistan, the largest portion of the Jammu and Kashmir State under Pakistan's control. Pakistan, later separated this portion of the State from the rest of the Pak occupied Kashmir (POK) and brought it under direct Pakistani rule.

Ladakh was saved by the gong literally. A small force of Gorkhas and Dogras were moved into Leh and a local levy raised. These troops under energetic commanders kept the Pakistanis at bay both in the Nubra Valley and from the Indus Valley. The capture of Zoji la and subsequently of Kargil by the Indians using tanks, finally linked up and saved Leh. In all these operations Pakistani officers alongwith Gilgit Scouts and State forces deserters gave a good account of themselves.

The latter part of 1948, however, saw a major effort mounted to relieve the besieged garrison at Poonch by the Indians. In the meantime, ofcourse, the Pakistan Army had by now done a remarkable piece of getting their act together under the devoted guidance of their British and Pakistani officers. By the beginning of 1948 the Army had managed to regroup and form the following formations¹⁰:-

- 7 Infantry Division -- Rawalpindi Area
- 8 Infantry Division -- Karachi - Quetta Area
- 9 Infantry Division -- NWFP Area
- 10 Infantry Division -- Lahore Area
- 3 Armoured Brigade -- Risalpur
- 14 Infantry Division - East Pakistan

A remarkable risk was taken and troops were withdrawn from North and South Waziristan on 6 December 1947 under "Operation CURZON", a delightful, turnabout on the man who had adopted the "forward policy" and sent troops into this area in the first place. At the same time all sources were tapped to buy arms, ammunition and other stores from which-ever agency it was possible to do so. There was hardly any country from where these were not sought, including war surplus stores of the Commonwealth Division in Japan.

By April 1948 two important events took place; first, the Indians after the slowing down of operations due to winter and other reasons resumed them in greater earnest and coordination. By 01 May 1948 Headquarters JAK forces was re-organised into two divisional headquarters, each responsible for the Kashmir and Jammu sectors respectively. This in itself was an indication that the Indian Army was now on top of the situation. The other was the rather slow progress at the United Nations, where, Pakistan's Foreign Minister, Sir Mohammad Zafar-Ullah-Khan filibustered the Security Council and succeeded in giving an entirely new twist to the original Indian complaint. A delightful diplomatic prospect for the Pakistanis but fraught with the risk of giving time to the Indians to achieve major military successes and thus leave very little on the ground for Sir Zafar-Ullah-Khan to debate about. Pakistan appreciated the danger and decided to commit its regular Army in strength. The Army was now ready to do so, albeit with caution. The Pakistani perception that India would not open up hostilities outside Jammu and Kashmir was re-inforced by the fact that though additional Indian troops had entered the fighting zone, no significant Indian concentrations were noticed anywhere else. Some Indian units were looking after a hesitant Hyderabad (Deccan). Consequently, General Sir Douglas Gracey, the Commander-in-Chief gave his appreciation to the Government at the end of April 1948. After giving his view that the Indians were planning an offensive to capture, Bhimbar, Mirpur and Poonch in the South as well as Muzaffarabad and Kohalla in the North; the effect this could have on the Pakistan Army and Pakistan itself, immediately and in the future; he recommended that:-

"If Pakistan is not to face another problem of about 2,750,000 people uprooted from their homes; if India is not to be allowed to sit on the doorsteps of Pakistan to the rear and on the flank, at liberty to enter at her will and pleasure; if civilian and military morale is not to be affected to a dangerous extent; and if subversive political forces are not to be let loose within Pakistan itself, it is imperative that the Indian Army is not allowed to advance beyond the general line Uri-Poonch-Naushera".¹¹ Dramatic in its opening over-tones but decisive never-the-less.

In the event, 7 Infantry Division (Major General Loftus Tottenham) was ordered to move into operations. With fears of Indian reactions outside State boundary still not completely ruled out, the move though swift was cautious. Initially they were to be behind the irregulars to prevent a major Indian break-through. Additional Pakistani troops, to which were now added the newly formed 9th Frontier Division (Major General Nazir Ahmed) followed 7 Infantry Division. 7 Infantry Division moved southwards covering the Kotli - Poonch line while the 9th Frontier Division was given the responsibility of the line Bagh-Uri-Tithwal. In the South 4/13 Frontier Force moved south of Jhangar to cover approaches to Mirpur. Two other battalions followed thus bringing the entire 25 Infantry Brigade into battle around Jhangar. Similarly, 101 Infantry Brigade moved to Chakothi. In May 1948 Uri and Tithwal became very active and the Indian Army pressures on the Pakistanis started building up. Plans were even made to withdraw and fight around Muzzafarabad. Since Tithwal and Uri sectors were complementary and with the Indians making substantial progress in the Tithwal sector as compared to the Uri sector, it was decided to concentrate all artillery North of the Kishen Ganga. As things turned out, however, although the Indians achieved some spectacular successes the fighting remained restricted to their furthest gains made in May-June in both Uri and Tithwal sectors. The loss of Pandu feature by the Indians was a major success to the Pakistanis as was their occupation of the Haji Pir Pass after the ceasefire in January 1949, an evacuation by the Indians, due to heavy snow fall. The Indians were to pay heavily for these lapses, specially the loss of the Haji Pir pass in the coming years.

By the end of June 1948 the Pakistan Army was either engaged in actual combat with their erstwhile comrades of the old Indian Army or backing up the so called Azad Kashmir units and the tribals.

The pattern of the Indian operations was now somewhat discernable. Their first priority appeared to be to seal off all entry points into the Valley through which major hostile forces could enter from areas of the State controlled by Pakistan or from Pakistan itself. Secondly, to link up with the beleaguered town and garrison of Poonch and finally to open the route to Ladakh over the Zoji la, already discussed earlier. Indian operations from May 1948 till end December that year succeeded in achieving this limited aim. Indian operations in the Uri-Tithwal sector and the Gurais-Kanzalwan sector were now restricted to consolidations of gains made. With the opening of the Zoji la -Leh axis the securing of heights over-looking this axis became the limited Indian objective here, as well as in the Naushera-Rajouri-Mendhar-Poonch sector. Meanwhile Hyderabad (Deccan) had been suitably dealt with by the Indians. The founder of Pakistan, Mr Jinnah had passed away. All in all, the psychological state of Pakistan and its Armed Forces was an unhappy one.

Some military action to establish Pakistan's military credibility was called for. A very ambitious plan was, therefore, drawn up to cut the Indian lines of communication in the Rajouri-Poonch area hopefully to isolate a major Indian force operating there. 'Operation VENUS', with 7 Infantry Division being the main force, supported by strong artillery elements and alongwith 14 Para Brigade pulled in from Lahore and the 3rd Armoured Brigade were concentrated to first attack the area around Beri Pattan Bridge and then fan out to isolate and destroy the Indians cut off from their base in Jammu. 6 December 1948 was fixed as the D Day. "LITTLE VENUS", subsidiary plan, was to be launched as a diversionary for capturing Reach and Maindak features. The plan did not take off on the due date, perhaps due to second thoughts. In the event, the Pakistani concentrations were discovered and engaged successfully by the Indian Air Force. A modified "Op VENUS" was then launched preceded by heavy artillery bombardment of the Beri Pattan bridge and the area around it. The Indian divisional headquarters at Naushera was also shelled and their counter-attacks along the Kali Dhar ridge held. But the operation did not make much progress and was perhaps not pressed home. The original Pakistani plan, based on a wrong assumption that most Indian forces had been committed with very few reserves available was a faulty one in any case. Substantial Indian forces remained uncommitted to react and even attack a largely uncovered Lahore. Whether the Indians would have reacted that way is another matter. Ian Stephens felt that, "the strategic conditions on this occasion interestingly foreshadowed those which developed during the three weeks war of August-September 1965".¹²

On January 1, 1949 the curtain was rung down on this first conflict over the State of Jammu and Kashmir with the acceptance of a United Nations sponsored ceasefire by the two sides. Many Pakistani writers have lamented the acceptance of this ceasefire by their Government. Could the Pakistan Army have scored a military victory? Certainly not. By giving a highly coloured version of how things were going for them, including exaggerated claims about the effects of what was achieved by a truncated "Op VENUS", even implying that the shelling of Beri-Pattan had virtually brought the Indians to their knees, forcing them to beg for the ceasefire, responsible Pakistani policy makers were laying the foundations of an ill-founded mythology which was to trap them over and over again in the future. The assertion of the Pakistani Prime Minister, Mr Liaquat Ali Khan, to the officers and men of the Pakistan Army, that they had been deliberately held back, was right in that otherwise it could have been a disaster for which Pakistan was not yet ready. Of course, a different interpretation has been drawn from this statement by Pakistani commentators who like to feel that otherwise the Pakistan Army could have taken the Valley by force.

The role of the British officers of the Pakistan Army during this conflict can never be minimized. They were after all at the highest levels and they kept the hot heads in the Pakistani officer cadre from stampeding the Government into committing Pakistan's Armed Forces in an unequal battle, from which they could not but have come out unsuccessfully. They were of the opinion that with the Valley having become an impossible military objective, the best was to negotiate for a ceasefire. In the meantime the tribals, the irregulars and the State forces deserters, were doing well, as long as they stuck to the tactics employed in the NW frontier.

They could continue to inflict casualties on the Indians. At the lower levels some British officers were not averse to giving tactical and technical advice to Pakistani units operating within the boundaries of the Jammu and Kashmir itself. The role of Major Brown and Captain Matheison in Gilgit has already been mentioned. The author had the occasion to listen to the adventures of two officers, one a Gunner (Ex 4 Field Regiment) and one from the author's own Regiment who took part - or as they put it, "were present" - in the vicinity with Pakistani Units including irregulars when Brig Usman was killed. Be that as it may, the overall advice and encouragement by the British military establishment, both in Pakistan and in the UK, was unstinted. The Chiefs of Staff in London, goaded by the Pakistan C-in C, General Messervy were convinced in the rather far fetched belief that India's long term policy as apparent from Kashmir was to subjugate and incorporate Pakistan, a perceived, more correctly, an imagined threat, which demanded, "every assistance to Pakistan Armed Forces".¹³ This was also the view of Field Marshal Montgomery, the then Chief of the Imperial General Staff. For the British, who had yet to come to terms with their diminishing power status, and who still held the Americans to be under their tutelage in the learning of the arts and crafts of a big power, Pakistan and wistfully India could still play a part in their strategic perceptions. Besides, notwithstanding the travails and miseries it could inflict, the arms race in the sub-continent, fuelled by Pakistan's obsession with Kashmir would help run down the huge sterling debt of over a billion dollars that the United Kingdom owed to undivided India. At least the Pakistani share of it could be reduced by arms sales to it. Pakistan walked into their parlour. "Arms and ammunition are necessary accoutrements for any army. In this case they were to be secured in order to bolster a defence establishment whose upper echelons were in two minds about the practicability of a military solution in Kashmir but which was to become the main recipient of the State's financial resources precisely on account of that dispute".¹⁴

What lessons did Pakistan learn from this first round with India? Some positive ones and a few faulty ones, which had either to be unlearned through

the other two conflicts later on or paid for very dearly. The use of irregulars or paramilitary troops, more particularly in mountainous terrain and as the first line to act as trip wire in open country was very well learnt. The necessity to have them controlled and commanded by and the through the regular Army was well absorbed. The use of infiltration tactics was correctly imbibed. psychological warfare, though tried out in a rudimentary manner had nevertheless begun. The need to put every bit of energy in keeping the Armed Forces well armed was now the driving aim of all Pakistani regimes. On the negative side, under-estimation of the fighting qualities of their opponents based on a blind acceptance of a martial superiority was to humble the Pakistanis twice over. A paranoia with their security was to become almost the *raison d'être* of the entire nation, to the exclusion of everything else. Finally, an obsession with Kashmir, which both blinds and drives the establishment, political, military and perhaps intellectual. An obsession that has wrought havoc with the innocent people of that unfortunate State.

Notes

¹Major General Fazal Muqem Khan - *'The Story of the Pakistan Army'* - Oxford University Press - 1963.

²Hasan Askari Rizvi - *'The Military and Politics in Pakistan'* - Progressive Publishers, Lahore - 1987.

³Pushpinder Singh, Ravi Rikhye and Peter Steinmann - *Fiza'ya - 'Psyche of the Pakistani Air Force'* - Society for Aero Space Studies.

⁴*Ibid.* p. 94.

⁵Ian Stephens: *'Pakistan'*, Third Edition, Page 203 - Ernest Benn Limited - 1967

⁶*Ibid.*

⁷*Ibid.*

⁸*Defence Journal* - Volume 3 - 4, 1992 - Karachi (PAKISTAN)

⁹*Ibid.*

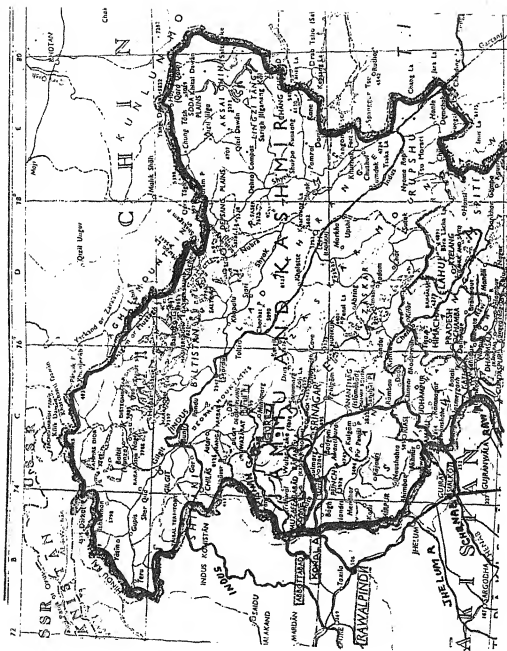
¹⁰*Ibid.* pp. 98-100.

¹¹*Ibid.*

¹²Ian Stephens - *'Pakistan'*.

¹³Ayesha Jalal - *'The State of Martial Rule'*. Page 55-54. Cambridge University Press - 1990.

¹⁴*Ibid* - Page 59.



JAMMU AND KASHMIR

Military Leadership in Today's Changing Socio-Economic and Technological Environment*

CAPT AKSHAYA HANDA 7 PARA

"Leadership is making people do what they don't want to do, and liking it."

-- Harry S Truman

INTRODUCTION

Since times immemorial one of the most discussed phenomenon has been that of leadership. It is known to have effected all the spheres of life and is credited for moulding the standard and styles of living. The greatness and destinies of countries, continents and civilizations is charted by leaders. Leaders who trigger a person's "will to do", show the way and guide group members towards group accomplishment. They give vision to people, help them develop their potential, employ it to the best use of the organization and, achieve goals through competency. They are people who deal with people. People who are a part of the society and are effected by all the changes in their society.

Logically, a leader is one who has a voluntary following. Therefore, to understand any leader it is very important to understand as to why does someone follow another. The reason for this is that in the latter he sees the ability to fulfil his own needs. Therefore, to discuss a leader it is a must to discuss his ability of being able to fulfil his follower's needs within the constraints of the organisation and his ability to convince his followers otherwise, if the need arises.


AIM

To discuss Military Leadership in today's changing socio-economic and technological environment.

DIRECTIONS OF CHANGE IN SOCIETY AND THEIR IMPACT ON MILITARY LEADERSHIP

The British era saw the Army being used as the ultimate weapon to subdue the locals. Hence, there was a need to enshrine the position of the

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Army. A unique combination of position, power and prestige thus became the phenomenon not only in war, but also in peace. This combined with the existing class hierarchy, to attract the richer feudal classes to the officer cadre. Coming from an economically stabler background, economic aspirations were almost non existing with them. They were rather attracted by the opportunity of glory, honour, prestige and an opportunity to prove their loyalty to the rulers. The last especially helped them maintain their power and prestige. Personal interests were thus subdued vis-a-vis the service. Independence came and, brought in its wake a number of changes. The white rulers were no more there and, their officer cadre was slowly withdrawn. This resulted in faster promotions for most. Combined with the upsurge of nationalism it was enough to replace the old loyalty to the British. The sense of insecurity in the country due to both the external and internal threats further created a degree of power and prestige. However, over the years the situation has changed. The euphoria of independence and nationalism has been subdued to a large extent. The Army is now increasingly being viewed as being strong enough to repel any external or internal threat to the country. Hence, due to the resulting sense of security the degree of feudal classes too, simultaneously, under pressure from different socialistic regulations, have declined. This has combined with Army's expansion, to open the gates of recruitment of the officer cadre to all classes. Though this has a number of advantages but, for one thing, increasingly this cadre is from the middle classes. For them, pure economic attraction is much more than any other promise of prestige or honour. Hence, the economic indifference of yester-years has been replaced by real economic awareness. These, understandably, career oriented officers have a much narrower social commitment. Every real or perceived threat to their career is thus bound to put them on the defensive.

Advancement in Military Technology. The Gulf War has indeed proved to be a watershed for Military technology and has ushered in a new era. Acquisition of newer, better and more high tech weapons than before, is the need of time. This would have a two fold effect on the armed forces. Firstly weapons with a better technology are bound to require manpower which is more literate than before. They are bound to be more aware of their rights and the world. Consequently, their aspirations and expectations would rise and, when they are not met they are likely to get disillusioned faster. Secondly even the old soldier would have to adopt to the new technology and, this would raise his literacy level and the level of his expectations. Moreover, the rate at which the new technology is introduced would determine the level of adaptability required from the armed forces personnel.

Effects of Better Technology on Society. Effects of technology on society

is bound to have an effect on the armed forces, indirectly. Hence, it is important to study these:-

(a) *Automation and Computerisation.* The society has realised that the wave of automation and computerisation sweeping the country is yet a decade or two short of its peak. The impressive job opportunities awaiting in this field are incentive enough to attract most people. However, the cost factor ensures that they are well out of the reach of the lower middle class. On the other hand, anybody who can afford these courses finds little or no use for his knowledge in the present day armed forces. The pay packet is also found to be inadequate to compensate for his fees and efforts. Therefore, increasingly the officer cadre is bound to be from the lower middle class as the rest would be attracted towards other jobs. Their connected real economic sense and career aspirations thus would be increasingly visible in the armed forces.

(b) *Era of Information Technology.* That the years to come would be an era of information technology has been well established now. This is bound to increase the awareness of personnel at all levels in the armed forces. As a result their expectations of economic and social gains are bound to rise. The leadership would thus have to cope with its effects too.

(c) *Job Insecurity.* The introduction of new technology has left a fear of massive job displacement. The known skills, knowledge and experience are much less in demand if not, already redundant. Acquisition of new skills thus is becoming an underlying imperative. This skills gap is bound to increase till those who are unable to change and adapt, either lose their jobs or fail to get any. On the other hand the armed forces, with their connected job security and comparatively slowly changing skills, seem a lucrative offer. However, the optimism must be viewed with caution, for, the attraction might well be limited to individuals, who either see themselves as unable to adapt to changes, or who have already failed. What would be the standards of leadership of such personnel in this profession where adaptability is a major required trait is anybody's guess.

SOCIO-ECONOMIC CHANGES AND THEIR IMPACT

Outlook Towards Men. Till just about two decades back it was considered that men in groups were basically bad, and they would not work till punished or forced to do so. This view however, is now under change. Managements are increasingly recognising the advantages of working with

worker groups. The latter are now being seen as basically good who would work if provided the right incentive. The armed forces, however, are a few years behind the corporate sector in this philosophy. Here too, nowadays personnel are viewed as basically neutral who have to be moulded and handled properly for results. They thus are seen as human beings with connected problems and follies.

Adaptability. Individuals are now being seen as more flexible and adaptable to change. Thus it is generally conceived that any change for the good of the organization would be acceptable if men understand its importance.

Job Identification. The individual is now seen more as a human being and less as just a part of the organisation.

Communication. The era when workers were expected to suppress their feelings about the action of the management is over. On the other hand nowadays the trend is to make effective use of the communication skills, and express one's feelings. This single factor is bound to have colossal effect on the armed forces. The personnel have started questioning orders as also making sure that their displeasure about a decision reaches the ears of their officers. Blind obedience of yesteryears is also on the decline. As a result of which the officer cadre has to work that much harder to establish their credibility as leaders.

Behavioural Pattern. The old trend of maskmanship and manipulation for personal gains is out. The officer cadre of today's armed forces is thus at cross roads. On one side his command is demanding more authentic behaviour from him while on the other side he is expected to maintain economic and social standards which he can ill afford. Authentic behaviour is demanded by his juniors but he cannot afford the same in his own career interests.

Trusting the Individual. The trend in the corporate world and the society today is that an individual after being given a job and the means to accomplish it is yet to fully show its effects in the armed forces. Nevertheless the younger generation, is now increasingly expecting more freedom of action.

One Upmanship. In the highly competitive corporate sector, the career interests can benefit a lot by a show of superiority over one's equals. This leads to a tendency of one upmanship. The armed forces personnel get an exposure to this trend both before enrolment and during his leave period. Later, with an aim to improve career prospects when he displays the same trends he is bound to harm the organisation.

Increase in Literacy Level. Literacy level in the country is on the increase. For the last few years the minimum qualification for the recruits joining the army has been the tenth class. Even for recruits who had joined the army earlier, the army is organising education classes. As discussed earlier a direct consequence of this has been the fact that the awareness level of all ranks has gone up. As they observe the world around them and compare their achievements vis-a-vis the rest their expectation level rises. These, when not achieved, tend to make them disillusioned and dissatisfied. Moreover, a literate person is also more likely to leave the army and try out his luck outside as he does not see himself as being completely without skill in the world.

Economic Goals. The general economic satisfaction which marked the society of a few decades back has today been replaced by a society with real economic goals. In the armed forces these have been transformed into personal career advancement, leading to a self centered approach to life. This phenomenon is here to stay and has to be tackled in its existence. To expect that like a few decades back, prestige and long valued traditions should be preferred over economic realities, is turning a blind eye to the present realities.

Inflation. The individual today is well aware of the declining buying power of the rupee. He also knows how his equivalents outside are able to beat inflation. He is unable to adapt himself to such measures. But as a government employee he expects the latter to help him out.

Comparatively less belief in Fate. All over the society today the majority believes that their actions of today would affect their future. Fate, thus has taken a back seat. This has resulted in the individuals on one side becoming more decisive and pragmatic while on the other side a bit more careeristic in their approach to life.

Concern with Personal Liberty. Since the last decade or so a wave of personal liberty has been sweeping the world on the whole. Consequently, the profession of arms with its connected restraint is becoming rather unpopular. Even those already in it are showing signs of discomfort and are looking for more elbow space to vent their feelings. This can well be ascertained by increasing numbers of resignations, petitions and court cases.

Individual Differences. The time, when individual differences were viewed as being unpleasant and a thing to be suppressed, is over. Today's society accepts them and endeavours to use them to improve the way of life. Though this trend is yet under control in the armed forces, the new draft is quite likely to be effected and will then more willingly question orders and voice discontent.

Use of Status. The old concept of using status as a means of personal prestige and power within the organisation is no more the order of the day. Any leader has to establish his credibility for being worth his status. Mere putting on badges of ranks on one's shoulders does not make him a leader. Any show of pseudo superiority would increasingly meet with resistance and breeds contempt.

Confrontations. Till a few years back confrontations were considered as something unpleasant, something to be avoided. However, these days confrontations backed with relevant collected data are seen as helping the organisation. This encourages the trend to question orders, status and authority. The leader would as a result, require much more credibility.

Awareness. The awareness level of our society is on the rise. Those with economic and political powers are found to be the real heroes of the society. This leads to a constant search for a better economic deal and the breaking down of many a moral and social values. The armed forces personnel's expectations too have taken an upward reversion. He too dreams of the rags to riches and wants to try out his luck. When he is unable to do so he tries to create discipline problems. On the other hand, persons are more aware of their rights and liberty, which makes the rules and regulations of the army seem too binding. As a result recruitment of new drafts of a reasonable standard will be an increasing problem.

Breaking Down of the Joint Family System. The joint family system has broken down and the family unit is much smaller than before. As a result on the one hand the soldier has become more self serving, while on the other his family problems and feuds are on the rise. The non complaining separated family of the soldier which till a decade ago was perhaps one of his greatest strengths may well be turning into his "achilles heels". Earlier, living with the rest of the family - away from the husband - it was satisfied by the prestige it got. Whenever, they had some problem, there was someone in the joint family to look after the wife and the children. Then the soldier's mind was free from that account. However, today the separated wives and their children have to live alone, when they run into problems there is no one to look after them and thus are a cause of constant worry to the soldier. Moreover, the wave of awareness of rights and economic realities too has affected the families. When they compare their problems with the outside world, they pester the soldier thus increasing his worry. The ever more demand of married accommodation in both peace and field stations is a clear indicator of this. Yes, it is predominantly an infantry problem, but then the infantry does form a major chunk of the armed forces.

Growing Unemployment. Unemployment has been on the rise in our country. On a first glance, it does well seem that the armed forces with their comparative job security are a lucrative opportunity. However, as discussed earlier it certainly does not get the best talent for the armed forces.

Increasing Urbanisation. Growing unemployment, breaking up of the joint family and higher economic aspirations have together combined to push increasingly more individuals to the towns. These are the families which are a major source of manpower for the armed forces. In general they are likely to be more literate, rights conscious and protest oriented. They exhibit a sense of confidence born out of realisation of skills, knowledge and power. These personnel are likely to be ever more demanding and more easily disillusioned.

There has been a steady and continuous shift towards greater autonomy, less acceptance of orders, greater cynicism and an increased desire to satisfy ones needs at his job.

Emphasis in the future is likely to be on the quality of work life in any job, shorter hours of work, more freedom, self esteem, self actualisation and general improvement in the standard of life. The armed forces thus would have to do a lot of rethinking to remain a lucrative job offer and attract talent.


MAJOR PROBLEMS IN THE APPLICATION OF MILITARY LEADERSHIP

Non Conforming Needs of the Organisation and the Individual. Though not really visible on the surface, this is the root cause of many other problems. A direct consequence of the new social trends being at cross roads with service aims, it leads to growing dissatisfaction, lower morale and discipline problems. The junior military leader finds himself inadequately equipped to mellow down the service aims or change the social trends.

Lack of Blind Obedience. The era when orders were obeyed just because they have been passed is over. The soldier of today questions their validity. Correct distribution of work load and fair opportunities is very important to him. Therefore, the military leader not only has to establish his credibility but also has to prove that he is always fair and thus maintain his credibility.

Lack of Motivating Factors. In the British times, the prestige and power connected with the armed forces, joined with caste, religion and the need to

distinguish oneself with the rulers, were factors motivating enough. In the immediate post independence era, the sense of insecurity and the upsurge of nationalism held the structure together. However today there is a lack of any general motivating factor. Caste, religion and regional barriers have broken down in the wake of literacy and socialistic legislations. Prestige for purely prestige's sake has taken a backseat while economic values are a forerunner. Hence, there is very little for a leader to appeal to and expect a positive response.



Lack of power of Incentive Provision. In the face of lack of any motivating factors, to produce an improvement, the leader has to either provide an incentive or resort to punishments. In order to award the latter the leader has to set standards which are not easily attainable. For this either they have to be ambiguous or too high. But still the leader has no choice but to adapt it for he does not have any power to provide an incentive. For a good job all he can provide is praise or at the most recommend the deed for an award. The latter too is wetted at so many stages that many a deserving deed gets dropped due to procedural points or such other minor issues. Even when the award is finally given the lapse between the deed and the award is so great that it loses most of its incentive power.

Zero Error Syndrome. The attitude of expecting near perfect results and no errors has infected the armed forces. The leaders have to justify their actions at all levels. Considering the fact that he too is a part of the society and has been affected by the trends of career advancement and economic reality, it is no wonder that he too has become extremely cautious. When a chance is taken it is shot down by competitors. If pressed further, small errors are telescoped and presented as colossal mistakes and failures. Interestingly this oneupmanship is covered under the pretext of good of the organization. In an organization where career advancement is vacancy based and each blemish pulls one down, it is no surprise that very few are ready to take too many chances. When one considers that in our organization there are too many ways to record failures and mistakes and hardly any for recording achievements this is even more explainable. At the end of the year thus when the all important Annual "Confidential Report" has to be written ten good deeds might not balance one error.

Lack of Talent Attraction Policies. These days the armed forces have to increasingly compete with the other job opportunities. A sad part of this fact is that they are increasingly falling behind with the distances ever increasing. Within the armed forces too the administrative echelons are stealing the show over the fighting echelons. Yes, the latter are getting their fair share of talent thanks to our policy of allotment of arms - but how many of them

are really volunteers is no secret from anyone. How much talent development can be expected from those who have become disillusioned at the beginning of the race is anybody's guess. Handling such people is, and would be, an increasing problem as the gap widens further. This is true not only for the officers cadre, but even the recruits today join the armed forces after failing in other fields resulting in a steady fall in the quality of men.

Increasing Concern for Self Advancement. The concern for achieving economic goals, increasing literacy, and drop in value accorded to prestige have resulted in an all round increase in the importance given to one's career. As a result initiative is subdued and oneupmanship gets a shot in the arm.

Family Presssures. As already discussed the breakdown of the joint family system has put the individual soldier under a lot of pressure from his family. The lack of adequate facilities further increases the problem.

Use of the Armed Forces as a Stepping Stone. Correspondence courses, distance learning packages and self education packets are increasingly gaining approval in the armed forces. With a set routine and comparatively less labour problems, no one is perhaps better suited to make use of these. The trend can be made out with not only officers but also increasing number of JCOs and ORs trying to increase their academic qualifications. They may later on like to side step into some other profession.

Plight of Ex-Servicemen. The professional soldier lives in an environment of his own cut off from the outside world. When 'Ex' is prefixed and he goes out he is still comparatively young enough not to retire, though old enough to start afresh, thus he finds himself at a loss. The fact that many schemes announced for their benefit have gone little further than the drawing board, has not made the situation any easier.

Lack of Effective Use of the Full Organizational Structure. Every organisational structure is designed with a specific purpose. More often than not the lower rungs are supposed to do the work on ground while the emphasis shifts towards controlling, co-ordinating and planning (in that order) as one moves up. However, the zero error syndrome has effectively ensured that the buck is increasingly stopping at the officer cadre. Thus the lower rungs of the organization are not being fully utilised. The problem has been further aggravated by the upgradation of ranks. This decision has in one go ensured three things. Firstly, more number of JCOs and NCOs means that even with the same percentage of inefficiency the overall numbers of inefficient NCOs and JCOs has gone up. Secondly, the ratio of supervising staff vis-a-vis the work force has gone up. Thirdly, the number of personnel against whom Company

Commanders and their equivalents cannot take action but for warnings has gone up. Once the JCOs and NCOs know that the Company Commanders or equivalents cannot take action against them they do not produce results for the latter. They know that the latter would not march up too many of them to the Commanding officer as it would be seen a case of poor command function of the sub unit commander. Even the Commanding Officer can only award them upto a severe reprimand summarily. For anything more, a lot of "much hated" paperwork would have to be undergone. Therefore, it is a risk which many of the NCOs and JCOs do not mind taking especially in the last years of their service. On the whole this has ensured a creeping in of inefficiency especially in the lower rungs and an increased discipline problem. In order to avoid this the officers too at the very onset of each problem pass the buck upwards instead of taking a decision, lest their command is challenged and career jeopardised. This goes against the authority level principle", which states that "maintenance of intended delegation requires that decisions within the authority of the individuals be made by them and not be referred upward". When this is violated re-centralization takes place and results in an increased work load for the officer cadre apart from poor results.

SUGGESTED AREAS OF IMPROVEMENT

Human problems, they say, keep going up through mutation; solve one and another one crops up. However, this certainly does not mean that old problems should not be solved in the hope that new don't crop up. The leader to maintain his credibility, has to solve the problems of his command. This effectively means that he has to adapt to the changing work culture by recognizing the changing trends of society. As per the human resources development researchers the major thrust areas of the future would be :-

- (a) Increasing attention to human problems.
- (b) Understanding, meeting and using the demands of workers for better use of the organization.
- (c) Leadership to be more service oriented in contrast to the present trend of orientation to the organization.
- (d) Increasing need for a flexible, rational and innovative approach to the management of personnel.
- (e) Need for expression will force management to restructure the work culture so that workers can find expression for their needs of creativity and autonomy in their jobs.
- (f) Management will have to ensure equal opportunities for all.

This change in the socio-economic trends and management approach is likely to have two sets of implications in the approach to human resources management:-

- (a) Management will have to respond in a greater measure to the genuine demands of individuals.
- (b) Increasing participation of all levels in the management.

Although all these trends are certainly more relevant for the corporate sector but still the armed forces cannot afford to turn a blind eye towards them. This is the future, as the armed forces personnel are exposed to it the same would be demanded here too. The more the armed forces distance itself from this change, the costlier, though inevitable it shall be. This trend has already been experienced by the Western Armies where today it is becoming difficult to get even the bare minimum number of recruits. On the other hand, if our armed forces wake-up to this trend, they can well adapt themselves and use the trends to their advantage.

Depth in Management. The leader would need to have to know his command much better. Nowadays, the old adage that "the leader must know his men as well as their mother and care even more", is all the more true. He would have to refrain from any hasty decisions; analyse each problem in greater depth and try and bring out a congruency between the service aims and the individual needs. For this he needs to have a positive attitude, a good control over language, be a good communicator and have the ability to use preceptions to his advantage. He has to convince the men about the requirements of the organization and the need to subdue their own needs to service aims. While doing all this he would have to make sure that he should not be preceived as providing a career threat to anyone. However, these cannot be viewed in isolation. For all this the leader requires time and time management is something in which the organization would have to assist him.

Time Management. Today in the armed forces, on one side we talk of time management while on the other non-productive work is increasing. There is an urgent need to off-set the difference in desired and achieved results. No level, no matter how small it is, should be spared. Unnecessary correspondence needs to be replaced by some faith. A thing like inter office notes in sub units or the habit of asking for information already forwarded in periodic reports are major time consuming non productive efforts. Ordering of "Court of Inquiries" and "Board of officers" at the drop of a hat - for activities ranging from the purchase of refrigerator to an auction of grass - normally finds majority of the officers involved in one or two of them on any normal day. What is the cost? His Command! Why Can't a Commanding Officer

simply "attribute" or "not attribute" an injury to military service? Where is the need of a court of inquiry? Why can't a person to whom "The president is pleased to give commission", who has twenty odd years of service and has risen through five to six ranks be trusted? A decision to pay all ranks through bank accounts could alone perhaps be a saviour of colossal man hours and stationary. Preparation of acquittance rolls, pay demand, collection of pay, disbursement, family allotment, quarterlies, debit balance cases, regularisation etc, can all be perhaps cut down, by the PAO's despatching copies of quarterlies (it may be made monthlies) to the banks and transfer of money in the normal transaction of the latter. A critical study might yet reveal another angle - the results achieved. A instrument like dry days, yes, is the need of the hour. But how much has it achieved? Has any unit surrendered mileage, or consumed less FOL than that authorised after cuts - are important questions which need to be, but, can only be answered by a critically independent study'group. On the other side, the amount of correspondence and ill will that it has created is no secret. One does sometimes get a view that we are today confusing activity for accomplishment. Therefore, it is no surprise that many an office today is being governed by the tyranny of urgency.

Need for Better Use of the Organization Ladder. The chain of command and the organization ladder must be made use of, especially, the lower rungs. To achieve this the JCOs and NCOs should be made more responsible for their actions. A system is also required in which their immediate superiors i.e., equivalents of Company Commanders and Company Second-in-Commands can make them pay for their follies. A handy guide to this is the fact that any punishment awarded should be reasonably near to offence in time, to be effective, as also the officer directly responsible for getting results from them should award it.

Recognition of Creditable Achievements. Compared to punishment, certainly a better way to have work done is to recognise achievements. Like punishments, the recognition too must be close in time to the act performed, for maximum effect. Therefore, there is a need of a system in which even the equivalent of a Battalion or a Company Commander can award their JCOs, NCOs and ORs. The award should be such that it can do something more than just increase prestige. If the individuals career can be linked with it, it would certainly be the best. Thus the military leader would have a viable incentive in his hand.

Need for an Appraisal system based on MBO Concept. Management by objectives (MBO) is a concept which has now been tried out for eons in the corporate sector. It has been proved as an excellent system for motivation. It is a concept of open appraisal in which the manager sits down with his

subordinates to set clear, concise, verifiable and mutually agreed goals for the coming period. This is then followed by a periodic review of the desired and achieved results. The review is then used for appraisal and competency development. On the other hand our present appraisal system based upon the "leadership trait principle" does not satisfy everyone. Honesty might be perceived differently by different people. While the difference between a nine point integrity and a five point integrity is not clear. After all either someone has integrity or he doesn't have it. Moreover, it does not have a specific way to reward achievements. To top it all, it is filled up during a specific period only at the end of each year. This means that achievements of the first half of the year might well be forgotten when this is being filled up. On the other hand someone who lies low in the first half and works in the second has a reasonably good chance to influence the initiating officer. The MBO concept attempts to do away with all of these. In this system the initiating officer has an across the table discussion with the person being reported upon to decide upon the objectives of the coming period. These have to be discussed by each initiating officer in light of the overall objectives of the unit/sub unit. Hence, it is pertinent that the process of defining objectives has to start at the very top. Once they have reached a consensus the final objectives are noted down. Subsequently over the year the two meet periodically to review the objectives and the progress towards them. The initiating officer simultaneously awards points according to the performance. This report is then forwarded to the reviewing officer who will quantify his own remarks and settle disputes. The periodicity for the above actions have to be fixed but would not be more than two to three months. At the end of the year the average scores are taken.

(a) Advantages.

- (i) Every person being reported upon feels he has a control over his career development.
- (ii) Better control over performance.
- (iii) Better indicator of performance.
- (iv) More objectivity in the value system of appraisal.
- (v) Every person understands as to what is expected from him.
- (vi) It is a detailed statement of a person's performance over the year.
- (vii) Time gap from the performance to recording is less.
- (viii) Achievements can be facilitated.

- (ix) A person cannot get away by working in one half of the year.
 - (x) Every person comes to know of his faults and gets time to rectify it.
- (b) Disadvantages.

(i) *Time Consuming.* This kind of a system would require much more time. However, it is hoped that it would be introduced only after the other non productive time consuming efforts have been discontinued.

(ii) *Span of Management.* This system would be highly impracticable with the present day span of management in which sometimes a Company Commander reports on sometimes as much as forty odd personnel. In fact expecting an initiating officer to report upon anything more than eight to nine persons would be highly unfair to both. This is where the organizational ladder has to be used and the Platoon Commanders and their equivalents made to report upon their subordinates. Yes, this would pose problems in the beginning, but they would be a matter of time.

(iii) *Objectives.* Unlike the corporate sector where most of the objectives are linked to profits and thus easily verifiable, earmarking of verifiable objectives for the armed forces may be a problem. However, a study team can well look into it and give guidelines. Secondly on occasion when the initiating officer may be desirous of too high objectives while the person being reported upon may like too low ones, can turn dirty. The study team would have to issue clear guidelines for such cases. Possibly the reviewing officer could settle the dispute or to have similar objectives for personnel in the same appointment may be a solution.

Need for Management Training. True human resource management science is improving daily. Though it is basically aimed at the corporate sector, the armed forces cannot ignore it. Training in this science would indeed go a long way in improving the leadership of the armed forces. Quality circles, productivity groups, counselling programmes, staff planning conferences, job redesign etc are just a few concepts which can be used to the advantage of the armed forces. This training would also help in the resettlement programme.

Zero Error Syndrome. In the armed forces, where the higher ranks are filled by vacancy based promotions, limited vacancies and limited time to

prove ones suitability for the next higher rank, has ensured that the zero error syndrome firmly takes root. In the short term though it does achieve short term goals, however, in the long run it impedes proper training of juniors. As a result, increasingly, the standards tend to slip downwards while the responsibility to have work done moves upwards in the organization ladder. Unless this is done away with and elbow space for proper mental and physical growth is provided the vicious cycle would carry on. The effort now should be to replace it with personal example, correction and guidance. However, all these should be so applied so as not to be a career threat to any one.

Economic Realities should be Recognised. To expect that either a military leader or any of the personnel would place the economic realities on a lower priority for the sake of prestige and traditions of the armed forces is to turn a blind eye to all the trends of society. On the other hand, keeping in view the difficult economic situation, to expect that the armed forces pay package would be made competitive with the corporate sector also would be dreaming of the sky. Still the Government would have to give a serious thought to the need of attraction of suitable talent. If not an economic package, some other facility or package should be designed for the armed forces. These too should be designed so as to counter the trend of the administrative echelons. Within the armed forces too the economic realities should be recognised. There is a need to re-assess our social values. Pseudo show has to be done away with and it would be made less expensive. A simpler, free of structural authoritarianism and richer in content social life would certainly be better suited. One should not be expected to maintain what he can ill afford. As long as economic interests are protected and promoted an approach to emotional involvement will be possible.

Intellectual Development. The potential of self-education and correspondence courses has not yet been fully exploited. The medium provides for a number of courses which can be beneficial to the armed forces - law and management training are two such examples. They simultaneously prepare a person for his resettlement. The armed forces should therefore encourage these. A bit of weightage to such courses in the promotion criteria may help in this encouragement.

Need for Making Organizational and Individual Goals Congruent. Perhaps the best motivational factor can be confirming goals for the individual and the organization. Over the last decade or two most of the major problems faced by the armed forces can be traced back to it. Whereas the social trends have increasingly shifted towards economic goals and career development the armed forces are still struck on the old belief of looking down on these. As a result today they are facing a "Catch-22" kind of a situation. On

the one hand the need for attracting talent is acute, on the other hand the pay package combined with the limited vacancies for promotion does not allow it to become a lucrative job opportunity. The state of ex-servicemen and the limited funds to improve it does not exactly make the situation any easier. A possible solution to this would be to allow the servicemen to side step into other jobs. On one side it would reduce the aspirants for the vacancies on top and thus make the latter more conforming in number to the former. On the other side, it would reduce the total number of ex-servicemen thus making their pension and re-settlement costs cheaper. Over and above if the alternate job opportunities are good enough the scheme can be used to attract talent too. For this the alternate career offered should offer either sufficient economic gain or enhanced prestige with career development opportunities. The civil services with an enhanced age limit or more opportunities and reserved seats is one such example. A second option could be to encourage servicemen to start their own business with soft loans. If this offer is made when the individual is young enough to have reasonable chances of success then he can well be offered pre-mature retirement with all benefits of ex-servicemen except pension. The service group of seven to ten years would be ideal for this kind of an offer. Yes, it is true to say that these offers would make the armed forces into a kind of a transit camp. But then the western armies - who train their soldiers for much more sophisticated technology and where the soldiers do not serve more than three to four years under the compulsory draft - have not suffered. Therefore, any fears linked to it can be called ill founded. On the other hand those who opt for pre-mature retirement can be redrafted as reserves and thus create an extremely viable second line. With the offer only of soft loans and no pension in the long term the budgetary expenses would come down too. The state of ex-servicemen would improve and would no longer be a cause of concern for the government. Any deficiency created by this kind of a decision is bound to be temporary.

Enhanced Facilities. This is basically an application of need for congruency in the organization and individual goals. A typical example of this is the case of married accommodation. Research in the corporate sector has shown that married personnel give less discipline problems and have a higher morale. A similar study in the armed forces on personnel allowed to stay with their families vis-a-vis those not allowed to do so, may yet produce interesting results. The fact that only a very small percentage really join to serve and, most do so for the purpose of pay and facilities should be recognised by all. Then on enrollment when they do not get the facilities they have been promised they are bound to be disappointed. When one finds that he cannot stay with his family for whom he has enrolled, or when PAOs or CDAs do not adjust the allowances he has already earned the hard way, it is no surprise that he

would look for better avenues. A need for better, enhanced, and streamlined facilities is felt at all levels and efforts are required to provide the same.

CONCLUSION

The essence of leadership is the ability to make others follow. This is possible when the goals propagated by the leader (the goals of organization) are congruent to the needs and goals of his followers. A Military leader's followers are all drawn from society, just, as the leader himself is. All of them are effected by the socio-economic changes and new trends of society. The leader and the organization would thus have to be conscious of all such changes and adapt to them. Any attempt to turn a blind eye towards them would only meet with disaster.

The organization on its part would have to adapt its goals to the new trends, for it cannot change or adapt the goals of the individuals considering the total number involved. The leader on his part would on the one side hope that the organization adapts itself at the earliest, on the otherside he would have to justify the "no change attitude" of the organization. He would have to do his best to meet the individuals needs without compromising on the organizational goals, however, for this he would need much more time to spend with his command to understand individual problems in detail and sift out the more deserving ones. Time management is an aspect in which he would require help from the organization. The leader would also be required to put across the organization's aims, requirements and difficulties to the men and, convince them to give it priority over their own needs. For this, he would not only have to be a positive man but also an extremely good communicator with the ability to use perceptions to his advantage. However, all this would succeed only for a while, ultimately the organization would have to adapt itself.

This paper is by no means comprehensive, for generalization of humans and human problems is one of the biggest mistakes that can be committed. It is intended to be suggestive and descriptive in nature and not prescriptive. The same trends may be viewed differently, but then they still do exist and it is important that the leadership and the organization of the armed forces realise their importance and adapt, before, time forces them to do so.

The Karakoram - Hindukush: Routes from China and Russia

SÂHDEV VOHRA, I.C.S. (RETD)

The Hindukush mountains fall off in a south-westerly direction from the Pamirs across Afghanistan and to the east of the Pamirs the Karakoram mountains form a descending arc. The Silk Route of ancient renown along which Chinese merchandise, including silk, was exported to Rome, was joined by routes from India along which the same exports were also sent through the west Indian port of Broach. This branch of the Silk Route passed over the Hindukush into Balkh, Wakhan and across the various passes from DORAH (meaning 'two ways') in the west, and Baroghil to Gilgit and Chitral, to the Mintaka in the east which could be approached from Hunza. The Dorah pass led through the fertile Kokcha valley in Balkh. The Baroghil pass led north to Sarhand (meaning 'Frontier') which was the boundary of Afghanistan. The Mintaka pass was on the direct route from Sinkiang via Sarikol. The British safeguarded these routes across the Hindukush during their period of rule over India by close supervision through agents posted in Kafiristan, Gilgit and Hunza, from time to time, by subventions and subsidies directly to rulers of Chitral, Gilgit, Hunza and by treaties with Jammu and Kashmir State in respect of these border States.

The Russian controlled these routes from the Pamir end, except the Mintaka pass which was accessible from Sinkiang. It led from Kashgar via "the great meridional ranges which divides the Pamirs from the Tarim basin. It joins the T'ien-shan, the 'Celestial Mountains' of the Chinese, on the north, to the snowy Hindukush on the south" (STEIN, A., On Ancient Tracks Past the Pamirs, *The Himalayan Journal*, p.1-26, April 1932). The new China-Pakistan Highway however has given up the Mintaka pass alignment which is close to the Russian border, and has a new alignment through the Khunjerab pass to the east across the Karakoram.

The Karakorams stretch from the Khunjerab pass to the Karakoram pass in the east, The main northern axis is also called the Muztagh range up to the Karakoram pass. To its north is the Aghil range and the Kun-lun mountains, running parallel to the Karakorams. The name Karakoram (in Turki : black loose shale) applies to the terrain on the Central Asian side

Shri Sahdev Vohra, a former member of the Indian Civil Service, has written several articles and books on the northern borders of India.

of the divide and the rivers that rise here flow south to the Indus. viz., the Shyok, the Nubra (also known as Yarma), and also to the north, viz., the Yarkand and the Shaksgam, the latter joining the Yarkand. It is the Karakoram pass which has been used by Caravans trading between Yarkand and Leh in Ladakh. For some reason the Mintaks route to Hunza has not been in use for trade - perhaps because of the Kanjutis' (people of Hunza) who looted the Caravans - they even looted the Caravans on the Karakoram pass. Francis Younghusband was the first to discover the Aghil range and the Shaksgam river in the 1890s. The Eastern Karakoram are accessible from Ladakh and Kashmir, and then along the Nubra or along the Shyok river. They are also reached from Rawalpindi in Pakistan.

The Himalayan ranges end to the south of the glacier land which forms the intervening region and are bound by the Indus river up to its northern apex where it is joined by the Gilgit river.

"As one flies from Rawalpindi northward up the Indus valley to Gilgit, one is struck by the great mass of Nanga Parbat (26, 620 feet) towering up on the right. Haramosh (24, 270 feet) rears icy walls...stands splendidly on its own in the Gilgit Agency. Further north still, the great jumble of peaks culminate in Rakaposhi (25,550 feet) which dominates Gilgit". This quotation from Wilfrid Noyce (*They Survived*, 1962) gives an idea of the towering mountain peaks of the Karakoram range (of which there are several more and of which K2 is the highest). The country of the glaciers and peaks in between the ranges and the Indus is sparsely inhabited by Burushos, Chitrali, Dards, Balti and the Ladakhis (from the west to the east), who survive by canalization of the glacial waters for the irrigation and by herding livestock in the narrow pastures.

The Eastern Karakoram has the biggest glaciers: the Rimo in the east which gives rise to the Yarkand river going north and to the Shyok flowing south to the Indus, the Siachen which is more than 70 km long and the biggest glacier in the region. The Nubra river which joins the Shyok has its origin in the south eastern "snout" of the Siachen. To the south west of Siachen are the Saltoro and Baltoro glaciers. There is evidence of ancient tracks used by the locals from Khapalu in Baltistan to Yarkand via the Sia La on the westernmost extremity of the Siachen and the area between the Karakoram and Kun-lun ranges. Adjacent to the Siachen glacier and immediately to its west is the Shaksgam valley on the southern slopes of the Aghil range. This area has been occupied by the Chinese after the 1963 border agreement with Pakistan in respect of the Sinkiang-Baltistan border of Jammu and Kashmir. According to K. Mason who surveyed the Shaksgam valley in 1926, the Shaksgam river drains the plains (which seem like Lingzi Tang

geologically) between the Karakoram and the Aghil ranges and proceeds northwest to join the Yarkand river. (See *The Exploration of the Shaksgam Valley and Aghil Ranges* by K. Mason, 1926)

The Western Karakorams afford passages through glaciers and peaks of inordinate magnitude that have to be negotiated. In 1887 Younghusband, travelling from China, crossed from Sinkiang via the Muztagh pass. he was the first and the only Englishmen to cross the old Muztagh pass which was closed in by glaciers and had been abandoned in favour of another (called the New Muztagh) ten miles further to the west. The Gilgit river which joins the Indus from the west furnishes the most likely routes for invaders via Yasin and the Darkot pass to Chitral and Gilgit. The route from Balkh to Kafiristan was also used but involves the more difficult terrain of Kafiristan. These routes lead to Russia and the only route available from China to Pakistan was the Sarikol route via Mintaka or Khunjerab passes.

The Chinese have closed the Yarkand-Leh route to commercial traffic and attempts are being made to make the Khunjerab route a commercial route instead. There are no reasons why the former route which was the main trade caravan route from Central Asia should not be reopened without any adverse effect on the new route to Islamabad nor should the Mintaka (meaning 'A Thousand Ibexes') route be abandoned. This pass was on the main route from Tashkurghan in Sarikol, Sinkiang, and is "the extremest boundary of China (Fleming, P L., *News from Tartary*). It was used more often than any other route for going from India to China or Sinkiang, across the Western Karakorams. Most of the local traffic will be encouraged by reopening passes like the Karakoram and the Mintaka.

There are routes along which in the ancient past invaders came across these formidable mountains. Alexander the Great crossed the Hindukush to go to Sogdiana (Samarkand) and came back across the Hindukush to Swat some years later to invade India. In 747 A.D., a Chinese force used the Baroghil route and went down the river to Chitral or directly across the glacier pass of Darkot into the valley of Yasin and thus into Gilgit, to fight the Tibetans. These military feats were matched by another at the eastern end of the Karakoram when the Zungar Mongols of Northern Turkestan crossed the Aksai Chin in 1717 to invade Tibet. They defeated the Mongols of the south who were abetted by the Chinese and had imprisoned the Dalai Lama. The Zungars installed the Dalai Lama. These military feats notwithstanding, and also reminding ourselves that Chou En-lai claimed that a Chinese force had marched across Aksai Chin in 1950 to invade Tibet, the terrain in these regions lends itself to forcible possession and dispossession, but is hardly in modern times likely to be used for invasion of the heartland territory.

The Army: Perspective of A 'Holy Cow'

LT GEN S C SARDESHPANDE, UYSM, AVSM

Commenting on the traditions, role and integration of the Army with the nation in post-independent political, social and economic milieu Mr. N.J. Nanporia has focussed on its self-gratifying insulation, 'us and them' view, non-participation in productive work, distaste for involvement in internal security duties and continuing reliance on British traditions in outlook and sustenance. His arguments have done the rounds in the *Deccan Herald*, *Tribune* and now *Sunday Mail* in the last one year. An attempt at such radical viewing of the Army is indeed welcome, but needs to be tempered with deeper examination, lest confusion and ignorance should compound national, institutional and professional thinking into either cynicism and dismissal of so sensitive an idea ill put or overenthusiasm and tearing haste to sort out the unholy cow.

Some broad highlights of the argument are : first, the Army's distancing from national mainstream and failure to integrate with the country, while attempting to remain a-political and insulated from the national rough and tumble. The question that arises is what is meant by this. Does it mean that the Army has not joined the national mainstream, and is to be clubbed with terrorists, secessionists and remote tribals on the nation's periphery who have remained outside it by design or default? Little known and even less appreciated is the fact of the seminal role the Army has played in bringing into the nation's mainstream the remote tribals of Nagaland, Mizoram, Manipur, Tripura, NEFA and Laddakh.

The Army's psychological integration with the country should be measured by the open, free and frank expression of informed views of officers and even a segment of rank and file in their discussions in messes and informal gatherings on one side, and the agony they have gone through such traumas as Operations Blue Star and Pawan, whose sensitive features would have unnerved any professional and patriotic soldier. Gone forever are the days when politics (and women) were taboo in officers messes. The Army has remained apolitical very largely by conscious choice and spirit of professionalism, since it has imbibed national virtues, values and aspirations to a degree few other institutions have done. Mr. Nanporia's ill - founded notion therefore needs to be given its due discount.

Lt Gen S C Sardeshpande was Chief of Staff, Indian Peace Keeping Force (IPKF) Sri Lanka, and then Director General Infantry, Army Headquarters, New Delhi.

Despite all the effects of national turmoil the Army has managed, at least so far, to remain apolitical, that is politically unbiased in the discharge of its duties, especially in its internal security role. Were it not for its integration with the country there would not have been those waves of mutinous manifestation after Blue Star and dissatisfaction with Pawan, both of which were yet quickly controlled and contained, once again because of the same awareness of integration. It needs emphasizing that a degree of aloofness, attempt to maintain separateness and immunity from passions released by national turmoil are inherent manifestations of professionalism, as the Army girdles ever more tightly to serve and protect its country.

It will be misleading and unfair to judge the Army by its aloofness, mess life, ritual displays, and articulated emphasis on apoliticality, calling them British legacy, while most of our major government agencies and political institutions are no better in doing away with many British carry overs, but are yet counted as Indian since Independence. In fact some of the really advantageous and useful traditions have not been imbibed by the Army : for example, their better and for more efficient civil-military integration and relationship at various levels of assessment, planning and execution; their Service Chief's direct access to the highest policy formulating institution and executive authority; and their sheer grit, determination, courage, innovative acumen and spirit of sacrifice that ensured that they always won the last battle, lasting out a while longer than their opponent in the field.

Second, the Army's undisguised distate for repeated and long duration involvement in internal security duties. Constitutionally, the Army is bound to provide security to the nation against external threat and internal disruption. The latter role has attained priority in the obtaining politico-social ambience in the country, as external inimical forces are waging proxy war within our country for the last several years as witnessed in Kashmir, Punjab and Assam. And yet the Army endlessly repeats that its main task is against external threat, and is permitted to get away with it! How is it fulfilling its role of ensuring internal security and why has it not whole-heartedly geared its attitude, strategy and operational doctrines to this end? What tactics has it evolved to employ minimum force against its own countrymen? What measures has it taken to strengthen discipline, morale and motivation under the more deadly internal security scenario? Why is it not being questioned on these issues? This is where it has become a holy cow. Neither do the people, the government and the press question it nor does the Army apply itself to tackle this gamut through constitutional, institutional or other legitimate fora.

It is not by itself so much a worry that frequent use of the Army would politicise it, as its inevitable fallout of such use conversely reducing the Army's

credibility and effect, with corresponding increase in the quantum of force required to be used and its duration. It is this long-duration use in internal security, with the simultaneous need for keeping ready to meet external threat that leaves inadequate time, scope and energy to digest new weapons and technology and to develop new tactics and operational doctrines. Controlling the process of politicisation and arresting the degradation of discipline and motivation are the Army's implicit responsibilities, which it must address with greater despatch, and not shirk or attempt to evade them by harping on the ill effects of employment in internal security.

The Army must find alternatives to lessen its use in internal security and press them on the government. An eminent police officer has suggested a small constitutional amendment regarding the responsibilities of the centre and the states, and the use of the innumerable para-military forces under their leaders, directly functioning under the centre instead of being parcelled out as of now. This will introduce one more echelon of control between the state government and the Army. It must also press the government to follow the system and organisation of centralised control under one commander in tackling internal security operations once they go beyond the law and order level.

The Army has three professional functions :

- (a) representing the service view in national security issues from the policy formulation stage, through the decision-making process to the execution stage;
- (b) advising the government on its (Army's) assessment of situations having security implications and on the "alternative courses of state action from military point of view";
- (c) executing government policies. In the words of a renowned analyst "(the soldier) has the right and duty to present his views in the public bodies, executive and legislature,...His contribution to the formulation of state policy is a cautious, conservative, restraining voice." Now how effectively, has the Army fulfilled these functions? If the government's policies and actions in Punjab, Kashmir and Assam are any guide then it is obvious that neither did the civil authority give the Army a due hearing nor did the Army make a forceful enough attempt to present its views in the "public bodies", and advise the government on the "implication of alternative courses of state action from military point of view".

This failure of the Army is a result of no power or right endowed to it legitimately by the government. Nor have the public institutions, the intelligentsia and the press thought it fit to rectify this weakness by focussing

government attention on it ever since the Army Act was amended in 1955 taking away the Service Chief's direct access to the highest policy formulating and decision making quarters even on national security matters, leave aside on matters having security connotations. In this sphere the Army has neither shown nor felt its involvement adequately enough to project such issues with the necessary strength and force.

Third, the Army's cantonment mentality, 'us and them' view and contempt for politicians and bureaucracy. The Army needs an area distinct, separate, and away from the civilian areas to live, train, store, maintain and secure its military hardware. You can call it cantonment or military area or whatever. Ours is still an unenlightened democracy; our secularism, liberalism and upliftment philosophy etc. are still skin-deep. As a people we are obsessed with our rights and oblivious to our obligations. Our rush for power and pelf do not hesitate to ravish and abuse these very institutions and values, resulting in corruption, violence, and its proliferation. We do need a neutral, unbiased force to knock into our heads and bones sanity and civilised behaviour. We should let the Army remain somewhat secluded and least affected for some more time so that it remains effective and retains awe, which will restrict the quantum and harshness of the force to be used, if it has to be used.

'Us and them' view, calling politics dirty, and holding politicians and bureaucracy in contempt are not only the Army's reaction but also most others. There is a Ministry of Defence, a civilian bureaucracy, above the Services, the former having considerable capacity for interfering, delaying and duplicating, but little accountability; you have Services Chiefs who have been deprived of their legitimate direct access to the nation's policy and decision making institutions; then there is that abounding ignorance among the people, the intelligentsia and most other institutions about the military, its role, functions, responsibilities, organismic being and its soldier and his responses; you have a people and their major political, social and educational institutions showing disinterest and apathy towards the military and national security intricacies and leaving it to the highly pre-occupied government to tackle everything. All these are bound to generate the 'us and them' view and help rear the 'Holy Cow'. Where is the desire or the time for the people, the government and the press to question, supervise and directionalise the Army?

Fourth, the Army's non-participation in 'productive' activities of the developing nation and paying for its enormous keep. Nations do not raise armed forces to undertake development projects as industrial or agricultural labour force to pay for their own keep. Armies are raised to ensure security of the nation, its people and production. There is a very clear difference

between professional army, people's army (like China had), salvation army, land army etc. Mixing the functions of fighting and productive work in a professional army as a matter of routine (which is what paying for its keep means) is full of danger, as it adversely affects combat training and motivation, equipment integration and maintenance. Army's ethos of "bashing on" regardless of cost, on a crash basis and emergency (War) footing is ill-suited to economic ways of doing development work on a careful, deliberate basis. If the government still considers it essential to make the Army undertake development activity then it should revise the Army's role, spell out tasks in the spheres of defence and development, along with an assessment of security scenario and availability of warning period to change gear from one field work to another.

It needs to be pointed out that the Army is already doing from within its own resources a fair amount of such work in the fields of ecology, wild life preservation, and bringing succour and civic amenities to the distressed, far flung, neglected people in trouble-torn states and border areas. It is of interest to note that the Army had Army Development Groups (ADGs) in Manipur, Naga Hills, erstwhile NEFA and Mizoram, where they did a marvellous job in helping the peripheral inhabitants with almost everything from health, sanitation and hygiene to education, agriculture, animal husbandry, cottage industry, food and water supply, building of houses, roads and tracks and so on. The closure of such unique venture of the Army in the mid 70's was in no small measure due to their popularity and utility becoming larger than what the State Governments could put out and therefore tolerate.

And so the 'holy cow' has come into being because of the ignorance, indifference, and lack of interest of the public, the civil authority and the press, as much as the Army's failure to fully realise and rise to its professional stature in regard to its functions, responsibilities, power structure, and awareness of its legitimate rights in a democratic set-up in projecting its views and rendering advice. It is in this sphere that its integration with the country is still not complete, mainly because the country has no time to question the Army and the Army is reluctant to seek legitimate power to project its view and use its right to advise and warn well in advance within public hearing. While it has to disabuse itself of its obsessive concern of external threat even when internal threat has set the country a-fire in many states, those nurturing the thought of the Army's failure to fully integrate with the country must disabuse themselves of this notion.

Counter-Insurgency Operations in the Indian Context: Some Reflections

MAJ GEN D BANERJEE, AVSM

INTRODUCTION

The concept of national security and the threats to it have undergone major changes with the end of the bipolar confrontation after the Cold War. Major overt war between nations have become a much less likely contingency. The Gulf War in 1991-92 was in many ways an aberration that was brought about by a number of somewhat exceptional factors that took place at a time when the world was in the final stages of this transition. A repetition of such congruent happenings is not very likely in the near future. Yet it must be remembered that war is essentially a product of miscalculations and misperceptions between nations, and does not always follow a logical path. Where there are unresolved political issues, such as border or territorial disputes, recourse to the armed might of a nation, after the failure of policy, continues to be a possibility¹. All states have the sovereign right and national duty to deliberately prepare for such contingencies, for even a perceived gap in this capability may well be an invitation to coercion from an adversary. But, the very success of such preparations often lead to a state of deterrence between nations that in today's environment and with the enormous destruction potential of present generation of weapon systems, make overt resort to arms a much less satisfactory method of resolving these problems.

At the same time transition to a post Cold War world has resulted in a period of instability which in turn has witnessed a proliferation of inter-state and intra-state disputes. Problems that were suppressed by force of arms and fear during the era of the Cold War have resurfaced with a vengeance borne out of long denial.² The break-up of the erstwhile Communist world is one dimension of this phenomenon. The other is the emergence of religious fundamentalism or irredentism, especially of its Islamic variety. "The End of History" may have signalled the victory of liberal democracy over authoritarianism, but the conflict of the next millenium may well see a new confrontation with emerging Islamic radicalism.³ In this context, especially where there are unresolved border or territorial questions, with or without religious or ethnic complications, resort to arms may be an even greater likelihood today. Lying in its periphery, India finds itself in a particularly

Maj Gen D Banerjee is Dy Director at the Institute of Defence Studies and Analysis, New Delhi.

sensitive region with all its consequences. The difference is that the nature of such conflict may have been fundamentally altered. It is unlikely to be an all out war with open resort to all means at the disposal of the State. More likely it will be a much more invidious, many dimensional challenge that will confront a nation's core values. This is the nature of war often termed as 'low intensity operations or conflict'.⁴

There are many variations of 'low intensity conflict'. What is proposed to be discussed in this article is its more extreme form, which is insurgency, and some macro aspects of countering it.

EMPLOYMENT OF THE ARMED FORCES

There has been a lively debate in India regarding the use of the Armed Forces in internal security situations. There are two distinct views on this. One perception is that the Army must have nothing to do with internal conflicts. Its task is to preserve the physical integrity of the nation, and modern war is complex enough to require full attention and comprehensive training to prepare for it. This does not then permit the resources of the Army to be frittered away in unnecessary causes at the expense of its primary role. Besides, the Armed Forces draw their succour and sustenance from the people and, therefore, must not be used against the nation's citizens.

The above premise though eminently reasonable goes against historical precedents. At a stage when the consolidation of a nation is the primary concern, most states have found that resort to all forces at its disposal is both necessary and justified. Abraham Lincoln's decision to pursue a Civil War in order to maintain the integrity of the USA is but one example, and there are many others. Such a period of consolidation began for the nations in Asia and Africa only after the end of colonialism in the later half of this Century. This resulted in a long and cathartic period of internal conflicts often with external interventions. The end of Communism in Europe is now forcing the erstwhile socialist states to look inwards in search of their own nationalisms, where the armed might of the NATO is being seriously considered to suppress the resultant violence.⁵ The massive use of force by the PLA against its own citizens at Tiananmen was justified by the Chinese leadership as essential to preserve its identity and character. Therefore, historically, armed might of considerable magnitude has always been employed by most nations to resolve internal conflicts.

There is also a view that such internal disorders are essentially political problems and must be resolved with the assistance of the police forces at the disposal of the State. In an ideal world this would perhaps be possible.

Presently, the existing State and Central armed police units in India, or for that matter in most countries, are not enough to deal with major problems. What forces are available are usually neither trained nor prepared to deal with large scale disorder or insurgency. Unfortunately in India, quite often they are a part of the problem rather than the solution. This cannot be rectified by creating yet another police organisation for this task, which it is hoped, by some remarkable good fortune will not suffer from the same limitations that prevail over the existing forces. The problem is not necessarily that of quantity, but quality of troops; and this cannot be corrected in a short period. Creating yet another force is certainly not the answer. Better training, leadership, improved conditions of service, suitable unit ethos and eliminating political interferences are the areas where we need to look for answers. If one were to accept then, that this type of threat, especially when directed and supported by the national resources of a hostile government, will usually be well outside the capability of any police organisation, no matter how well trained or equipped, then there is ample justification and even necessity, for the employment of the Army.

Viewed in its totality, it should be considered whether as the last bastion of the State the Army can remain a silent spectator when the nation faces such fundamental challenges to its security. The enormous resources of the State that it consumes cannot be preserved for a major contingency that may never arise. Of course the Army's involvement in such situations must not be to the detriment of its primary role. The answer would seem to lie in devising methods of balancing these conflicting requirements, rather than in avoiding the responsibility altogether.

The time has come that we should consider involvement in counter-insurgency operations not as an aberration that detracts the Army from preparing for 'real war'. This is, in fact, the new face of war to which we should very seriously evolve suitable responses. Not only should this be accepted by the defence hierarchy, but it should then more deliberately devise effective doctrines, training methods and introduce weapons and tactics to deal with such situations. This is the type and nature of 'dual tasking' to which the Army may need to give serious thought in the future.

NATURE OF INSURGENCY AND COUNTER-INSURGENCY

The first element that needs to be emphasised is that an insurgency is a child nurtured in its own environment. No two insurgencies are similar. Indeed they differ very substantially from one another and are a product of at least three factors. One is terrain that always influences operations. Another is the quantity of weapons available and the efficiency of its use by the

insurgents. The third is the 'cause' and the degree of support that it enjoys from the populace.

Hilly jungle areas with minimum communication facilities and adjoining a hostile neighbouring state, provide the ideal environment. Combination of other circumstances offer different options. Other characteristics such as habitation pattern, whether it has a rural or urban bias and the level of development in the area, may well determine its nature in that particular environment. The availability of weapons, their sophistication and the level of expertise in their use by the insurgents may again vary widely. We have experienced such wide divergence as the Naga, Mizo, ULFA, LTTE, the Punjab and Kashmir scenarios. Each have differed widely and need no further elaboration. The 'cause' is always a significant factor and it is naturally specific to a situation. Here the demographic pattern is an important determinant. Where there are sizeable minorities or tribal variations in the population, the tasks of the security forces become easier as the support to the 'cause' would vary between groups and exploitation of such differences become possible. With a homogenous population that strongly believes in the 'cause', it is a different proposition and may require an altogether new approach. An insurgency is essentially a political condition, even though it is fuelled by many factors. Therefore, it operates at many levels, with the political factor remaining the most dominant. Independence, autonomy or simply greater voice in determining one's own political environment may be the key elements. But simultaneously there may be other factors, such as religious motivations, economic aspirations, administrative neglect, corruption, social imbalances, ethnic diversities, and many others, which may all contribute to the 'cause' of the insurgency.

At a particular stage one factor may predominate while others may assume greater relevance later. In any case, by its very nature, insurgency is always a multi-dimensional condition where such factors are interdependent and complementary. A compartmental approach, therefore, is not the best way of tackling it. It may be right to some extent to say that till such time as the security environment has improved that a political process cannot start and other problems cannot be addressed. But it is important to remember that the political process is not merely the electoral process. Conditions that have resulted in the people resorting to the use of arms against the State and for which they are prepared to make the supreme sacrifice, will probably have wider connotations. It is dealing with these issues and finding viable alternatives to these problems that is the real political approach, and not merely elections under the existing dispensation. Obviously then use of counter-force is only a part of the solution, even though an important one perhaps in the initial stages.

It is important to remember that only when simultaneous attempts are made to deal with its various facets will real success be achieved in counter-insurgency. For example, only when the real grievances of the people, whether religious, economic, ethnic or social, appear to be tackled, that intelligence will be forthcoming and the support to the cause of militant violence will begin to reduce. This in turn will facilitate the tasks of the security forces and wean away the insurgents from the path of violence. Tackling an insurgency piecemeal is like countering an octopus one limb at a time. While that limb may be tackled and even severed, others would by then have so engulfed the challenger as to enmesh him and make him impotent.

This brief analysis highlights the enormous variations that are possible in an insurgency environment and why no 'template' solution can possibly work. It also brings home the complexity and variants in a counter-insurgency response and the importance of detailed study and analysis before formulating a strategy.

MILITARY STRATEGY AND TACTICS

Military strategy forms but only one component of the national strategy and is derived from it. The only national objective in counter-insurgency is clearly to, "win over the hearts and minds of the people". Fortunately in our country this objective has come to be universally accepted, but it will be wise to remember that this has not always been so in other environments. In many countries, especially in the immediate post-colonial era, the use of force and the tactics employed were such as to aim at the very extermination of the affected population, which then justified draconian measures. This is one reason why structures and organisations that were used in those environments, howsoever successful, may not be relevant in a liberal democracy as prevailing in India. It is important to always beware of it and to never deviate from the overall aim, no matter what the provocation or the compulsion. This is also the rationale for the use of 'minimum force'.

The nature of this objective also explains why a counter-insurgency operation takes so long, often decades of patient effort, even though the intensity of counter-measures may not always be very high. Sometimes a generational change is needed to reorientate people's thinking and to rectify situations brought about by long neglect. But it is well to remember that the battles for the minds of the people are neither less intense nor easy.

What then are the essential ingredients of strategy in this environment? This may be discussed based on Liddell Hart's definition of strategy; which is, "the art of distributing and applying military means to fulfil the ends of

policy".⁶ The key element is to counter the insurgents' ability to influence the minds of the populace. They achieve it by the coercive use of force, propaganda and by discrediting the legitimate government. The first priority then is to remove the weapons from their possession. This may be achieved by cutting off supply and capturing the ones that are already available with them. Next, is to disrupt the communication links between various insurgent groups and organisations. By intercepting this their activities will be paralysed. This will need careful identification of the insurgents hideouts and strong points and launching operations to eliminate them. Sanctuaries and safe areas must be identified and then eradicated. Finally, the insurgents' ability to influence the minds of the people must be denied.

In brief then military strategy in counter-insurgency may be spelt out as to :

- (a) separate the weapons from the insurgents;
- (b) compel the insurgents to give up the path of violence through continuous pressure and convincing them that resort to arms will not help in achieving their goals; and,
- (c) provide a secure environment to enable the Government to function and allow political initiatives to take place, to eradicate the genesis of the problem.

It is obvious then that it is not absolutely necessary to eliminate the militants. If the people are made to give up violence then arms will be surrendered voluntarily or remain buried forever in their hides. Killing even an armed militant is not always necessary. If he is captured and converted it is of far greater value. Often it is the better element of society that believing in a cause, howsoever misplaced, resorts to the use of arms. When the society is to be rebuilt, it is the very same people who must then contribute to this process of restructuring.

Tactics will flow from the dictates of strategy. It is not necessary to go into details, what is relevant is to identify the approach. While strategy is the realm of the general, tactics, especially in an insurgency is the domain of the unit commander. The evolution and refinement of tactics then must be left to that level, for --

"Tactics to a military man, the very sound of the word means changes in a military situation and constant mental effort. And that is what tactics really is - an integral part of military art, ever developing, reacting continuously to changes in technology, in armaments, means of control, in enemy's method of operation. Tactics and routine are poor bedfellows."⁷

It is absolutely necessary then to leave the planning and execution of operations at the hands of the unit commander. Detailed guidelines will be needed, but the responsibility for execution has to be delegated. Where the operation envisages major coordination and employment of larger bodies of troops, the controlling headquarters may be upgraded. This will be an exception rather than the rule. The words that best describe the nature of tactics at this level are, innovation, initiative, avoidance of routine, surprise, doing the unexpected, boldness, cunning, etc. Such things can hardly happen through rigid control at higher headquarters.

It is evident from the above that troops will need to orientate to the situation and must be trained for this task. Careful procedures have been evolved over the years to prepare units for counter-insurgency in the Eastern theatre. It is indeed surprising that in our response to recent situations this basic aspect of training has been entirely overlooked. An insurgency is a novel situation. No organised body of troops can instantly transform itself to meet it and be expected to perform effectively as a group without careful preparation to meet these new requirements. It is absolutely essential to evolve specific methods to meet new tactical situations. Those who contend that the infantry should be constantly ready to perform every task and transform itself instantly for counter-insurgency, show inadequate understanding of the dynamics of small unit tactics.

It is important to emphasise one characteristic of an insurgency. An insurgent condition may develop over many years, but when it merits calling in the Army, the legitimacy of the state or the government would by then have been seriously undermined in the eyes of the people and the effectiveness of the administration may have largely vanished. One consequence is that it will take many years of painful effort following correct policies to rectify the situation. This calls for evolving both a long and short term strategy. The other aspect is that most of the state structures would have ceased to exist and may have to be rebuilt even with support from the security forces. In such a situation it is folly to expect normal responses from the civil administration or full cooperation from all its agencies.

INTELLIGENCE

There is a frequent complaint from the security forces regarding the lack of intelligence in an insurgency environment. It is claimed that no actionable intelligence is forthcoming and that the organisation to acquire it has collapsed. Hence, the security forces have to perform in a vacuum. While the fact itself is true, the condition has to be viewed in a broader context. As discussed earlier, a state of insurgency presupposes a collapse of state struc-

tures. Therefore, to expect that an intelligence network will be in place at such a time is not being realistic. In fact, there is an excellent organisation of internal intelligence within the country during normal times and inputs are available from a variety of institutions which are both reliable and accurate. Even the Army with its limited resources is in a position to provide this in some specific areas where it is present. That decisions are not taken in time based on these inputs is another matter. But when the situation does erupt and assume serious proportions, the sources of information would have been compromised and most organisations would have been infiltrated. It will be a painful and time consuming process to rebuild the intelligence structure. Even though the task will have to be undertaken, it will not be easy or produce results early.

Operational or tactical intelligence is an entirely different matter. In an insurgency it is a rare situation that it is available from above or from outside agencies. From experience it appears that such information are usually out of date, obtained from indirect sources, are not relevant to the situation and therefore, unusable. More than anything else, it is these bits of information from the 'highest quarter' that lead to unnecessary 'jungle bashing', and seldom produce results. The only way to develop actionable intelligence is at the unit and lower formation level, to go out and cultivate sources and obtain it first hand. Only when there is interaction and contact with the local population will information become available. In such a situation it is everyone's responsibility to develop intelligence. Operations and intelligence are closely intertwined and cannot be separated at the tactical level.

At the same time it is important to deploy additional intelligence sources, and even more important to carefully coordinate this activity amongst the various agencies. Coordination does not necessarily require laying down a strict organisation, or a single intelligence structure. Variety is often more appropriate and in any case given the sensitive nature of such agencies and their different responsibilities, probably the only answer. Regular and frequent meetings of different agencies and effective coordination in a spirit of genuine cooperation at appropriate levels is a realistic option and is probably the best answer.

ROLE OF THE MEDIA AND PSYCHOLOGICAL WARFARE

If the battle is for the hearts and minds of the people it is obvious that the weapons of war are not the rifle and carbine. If the purpose is to change the process of thinking and alignment of the disaffected portion of the population, instruments for this are not the bullet and the bomb. This is the fundamental difference of insurgency from conventional war and what sets it apart and

endows it with its special characteristics. Not only is this the basis of the logic of military force, this factor determines the way the effort of the State has to be directed. If the above is accepted, then the importance of the media and that of psychologically influencing the population becomes obvious. The very causes that have given rise to the insurgency have alienated at least a major segment of the population. In this situation, anything that is propagated by the militant organisation or agencies subverted by it are readily accepted. The national media, specially where it is an extension of the State, automatically suffers from a lack of credibility.

The first issue is to accept the importance and relevance of the media as a weapon of war. Under the mistaken notion of security or simply out of a misconceived perception of keeping the security forces actions out of public scrutiny, no serious effort is made to inform the media. The Fourth Estate is not only an important part of the democratic structure but its correct handling is vital for eventual success.

It is necessary to identify some broad principles of interacting with the media, which is relevant in our context. These are :

- (a) Allow the media access to the military and its operations, within the bounds of reasonable personal security of media personnel. The access and interaction should be decentralised at the divisional level.
- (b) Follow an open policy in regard to interaction with the media. Allow officers and soldiers to put across their conduct and assessments directly. There are some basic rules and certain guidelines that would have to be followed. It will also be necessary to brief all officers on the rules of interaction with the media, which are really simple and can be explained in a small pamphlet. Some training will also be necessary to give interviews.
- (c) Senior commanders and staff officers should give regular periodic briefings at frequent intervals. Broad policies and assessments can be spelt out. Allegations can be countered, and clarifications provided as necessary.

There is nothing to be afraid of in such interactions. Majority of our national press is mature and nationalistic in approach and do not believe in sensationalism. What they lack is a balanced two sided picture and some orientation to the actual environment. It can also contribute by bringing to notice some of the aberrations of security forces actions and thus help corrective actions.

The next goal is to more actively mould people's minds. this is psychological warfare. While the responsibility for this is more appropriately that of

the civil administration, once again because of the circumstances, the Army has to take the lead. In any case psywar has to be closely integrated with all aspects of military operations. It is much more than mere civic action, which ofcourse the Army undertakes very effectively even within its limited resources. Not fully utilising the potential of psywar is to fight the insurgents with eyes closed.

CONCLUSION

The Indian Army has enormous experience of counter-insurgency, in its different manifestations, in varying terrain conditions, and widely divergent socio-political environment. Yet there is a lack of a coherent doctrine to counter it. Four major reasons may be attributed for it. First, is a reluctance to accept the responsibility, discarding it as a secondary role but which is not to be countenanced. Next, is an inadequate understanding of the political reality of a democratic state and a hankering after colonial models with their authoritarian approaches. Third, is the inability to match the Army's intelligence apparatus with that of the civil infrastructure and lastly, a genuine distaste for adopting psywar techniques.

Formulation of a doctrine will require inputs from the national level, but it is time this is seriously considered. Internal disorders in India will continue for a considerable time. Once these emerge as full blown insurgencies they are difficult to deal with effectively. The effort needed to counter them are so high that the nation does not have the ability to deal with many of these simultaneously. The effort then must be to identify problem areas at the early stages and then to engage them effectively through suitable mechanisms.

NOTES

1. Carl von Clausewitz's famous dictum, therefore, continues to be relevant today, though this must be qualified by circumstances of the present strategic environment.
2. This has particular reference to the erstwhile Republics of the Soviet Union and Yugoslavia, which will probably see many years of simmering conflict before their borders and relationships stabilise.
3. The famous essay by Francis Fukuyama in the National Interest.
4. The term was popularised by General Sir Frank Kitson in his Book, *Low Intensity Operations*, Faber and Faber, London, 1971.
5. International Herald Tribune, Jun 11, 1992.
6. Basil Liddell Hart, *Strategy - the Indirect Approach*, Faber and Faber, London, 1968, p. 334.
7. Attributed to General Mikhael Mitrofanovich Zaitsev, Commander of the Soviet Forces in Afghanistan in 1985.

Conventional Arms Control, Arms Transfers and Conflict Models for the Third World in Western Literature with Emphasis on South Asia (up to 1979) - Part III

DR NISHA SAHAI - ACHUTHAN*

ARMS RACE: CONFLICT MODELS: CASE STUDY OF SOUTH ASIA

The second part of this paper appearing in a previous issue of the journal had examined the supplier-recipient patterns of arms transfer and had then applied some of these models to the South Asian case. This part of the paper critically examines some definitional problems about the terms "arms race," as presented in the MIT study along with their models of regional conflict, and its linkage with arms acquisition and the arms race. Here, too, while examining their case study of South Asia for the 1955-65 period, this model is then applied by us to the post-1965 period.

ARMS RACE: THE MIT DEFINITION

The MIT study referred to earlier discusses some definitional problems relating to the term "arms race" and its linkage with regional conflict, for which it then works out a four-phase model. As regards the definition of arms race, the observations in this study are particularly insightful for such of the big powers, who continually talk of the arms race in the context of the Third World, without much regard either for the defence needs cum security perceptions of the countries in question, or the latter's perceptions of what constitutes the arms race among the big powers themselves. As the MIT study observes, the term is often used for passing a negative judgement on a particular arms acquisition process which in turn is perceived as being dangerous, wasteful, and/or irrelevant to the "real" needs of the country/countries involved. Since this often takes the form of a value-judgement, it is not an objective description, and hence as the study concludes it is necessary to define instead, the different types of arms acquisition processes, which it describes as follows.¹

*Dr Nisha Sahai-Achuthan is a member of the Indian Administrative Service. She obtained her doctorate from Political Science Department of Columbia University.

Firstly, according to this study all arms acquisitions are competitive in the broadest sense of the term, yet all of them are not designed to change the relative power of the states. They may in fact seek to maintain a rough status-quo in the region.² On the other hand one state in a region may seek to change its relative power status, which would add to the momentum of the arms acquisition process till a new status-quo is arrived at.³ Different states have different arms acquisition styles such as the "Surge pattern" etc., discussed earlier. These variables may then be placed on a scale of "least" to "most" dangerous.⁴ Qualitative distinctions in the acquisition patterns are summed up as "Initiative" and "Off-setting" acquisitions. In the former case, among non-adversaries, "prestige" may be the basis, while among adversaries, deterrence of the other may be the motivating factor. The offsetting acquisitions are described by way of example as one, where an anti-aircraft system is acquired, as a reaction to a bomber. In the case of offsetting acquisition patterns among non-adversaries, it may have a more destabilising effect than the imitative style.² Among adversaries on the other hand, such an acquisition style, as the study adds, may well bring to an end the stiff arms competition preceding this process.

Applying some of these patterns to the South Asian case, it would appear that while some of these observations would hold true others would not. For example, while applying the first characteristic to South Asia, the arms acquisition pattern obtaining in this region has, to say the least, been competitive between adversaries, each following different acquisition styles, during different phases for different weapons. In the wake of the U.S.-Pakistan defense agreement of 1954 and the acquisition by Pakistan of sophisticated U.S. weapons, it was India which had sought to change its "relative-power-status" in the period 1955 to 1965, in order for it to maintain a rough status-quo. Understandably, Pakistan's interpretation and perceptions thereof would have been different, particularly in the period following the two Indo-Pakistan wars of 1965 and 1971. In the latter case, with India clearly emerging as the dominant regional power, Pakistan's efforts towards reaching some sort of a new status-quo predictably added the momentum to the regional arms-race. Again, the weapons-acquisition process too has followed different patterns with respect to the two South Asian countries. In this context the MIT study's observations on the qualitative distinctions need not always be mutually exclusive -- especially so in the South Asian case. Here, both, reasons of prestige and deterrence have been operative, within the framework of the adversary patterns. Again the "offsetting" acquisition pattern, in the way the MIT study describes it to be, has not ended the arms competition preceding this process. On the other hand, as observed earlier, there has hardly been any let up in the South Asian case, in this regard.

The MIT study concludes its discussion of the arms race definitions, by taking into account some of these caveats, such as the likelihood of the "misperceptions" by stages of each others' intentions even in non-adversary relationships. In fact it goes on to suggest that in view of some of these problems the phrase "arms-race" be abandoned altogether but hastens to add that since its usage is likely to continue for some time, the following definition of it may be considered: (i) Arms race refers to the acquisition of arms by adversary states, which is intended to alter the relative power-relationship between or among them; (ii) These are characterised by departures from past habits and patterns of acquisition, and are also marked by efforts to shorten the time between a decision to acquire, and the actual acquisition; (iii) Sharp rises in military expenditures that "cannot be explained in non-equipment terms" should alert one to the possible commencement of an arms race (if adversaries react).³ In applying this definition of arms race to the South Asian case, while the first characteristic could apply in certain phases, it is not quite clear what the implications of the second characteristic are. For example, does the term "departure" in acquisition patterns imply changes in the style of acquisition, such as a movement from "accretion" to "surge" or does it mean switching over from one supplier to the other. If it alludes to the former, than as per the analysis of the MIT study, such changes in acquisition styles, weapons-wise, have occurred in almost all the regions--as it is in South Asia--included in their case study.⁴ Would this then mean that the arms race has been a perennial-unceasing endemic-phenomenon?

As for the third characteristic, in the case of South Asia certain phases have witnessed a sharp rise in the military expenditures of the two regional powers. In some cases this could be explained in "non-equipment" terms such as the rise in expenditures as in the case of India following the 1962 debacle when moves were afoot to expand the army, along with particular emphasis on the training programme of officers and the NCOs (Non Commissioned Officers). However, this does not imply that the expenditure on "equipment" did not show a concurrent, steep rise. Again, the Telescoping of the time between the decision to acquire and the actual acquisition may not always be an indicator of an arms race. Such a process may be dictated quite often by unusual circumstances such as being in a phase of actual conflict necessitating such acquisitions. Despite some of these conceptual problems in the MIT study on the whole it has the merit of providing an objective, working-definition, free of any of the patronizing or subjective overtones, which quite often characterize the perceptions of the bigger powers or the supplier states.

THE MIT MODEL OF CONFLICT; LINKAGE WITH ARMS ACQUISITION

This model has been developed in another study undertaken by the MIT on local conflict and arms control.⁵ The different phases of conflict have been identified as follows :

- Phase I : Dispute, pre-hostilities, pre-military; here the dispute is not perceived in military terms by either party.
- Phase II : Pre-hostilities, but seen in military terms; where at least one side perceives military force as relevant to the dispute.
- Phase III : Hostilities, in which the military option is taken up.
- Phase IV : Post-hostilities conflict, still perceived in military terms.
- Phase V : A demilitarized dispute; post-conflict, but the dispute still remains.
- Phase VI : Settlement of underlying dispute.

Based on this model, case studies were undertaken by the MIT study group of a number of regional conflicts and in the process, it also worked out linkages between arms acquisitions and conflict. The conclusions of the case study of the *Indo-Pakistan conflict* undertaken by them for the 1954-68 period appear to be by and large correct. These are summed up as follows.⁶ (1) The Indo-Pakistan conflict had already passed through Phase III in the fighting in 1949 and had been in Phase IV since 1950. (2) The 1954-59 period witnessed a steep rise in the Indian *combat* inventory, but the rise was not so steep in the case of Pakistan. This trend, however began to level off after 1959. (3) Following the 1965 hostilities and the arms embargo, while India's combat force virtually ceased growing, Pakistan's combat aircraft inventories showed a marked rise, with acquisitions mainly from France and China, and by 1967 it almost doubled its 1959 peak.⁷ The main trends as summed up in this study were therefore as follows: Inventories of combat aircraft, had increased in Phase IV (1950), but they stabilised quantitatively at least six years before the hostilities resumed in Phase III in 1965 (i.e. by 1959). In the post-hostility -Phase IV, the inventory of one party (i.e. Pakistan) increased while that of the other (India) continued to be stable.

In the case of *tank* inventories, at least in terms of the "available numbers of systems, the findings of the MIT study are as follows: India surpassed Pakistan in the number of tanks for the first time in 1965, and both countries continued to expand their forces, following the 1965 war. Prior to 1965, the growth in India's tank inventories had begun about the same time as its border war with China.⁸ Earlier, in the post-1954 Phase, the tank inventories of both India and Pakistan had registered a sharp increase, reaching their peak in 1957 and 1960 respectively, after which both stabilised their levels

roughly till 1962. The other MIT Study on conflict control gives a detailed weapons-analysis of both India and Pakistan at the time of the 1965 hostilities and traces their overall weapons acquisition policies since 1947. It then sums up the key conflict control measures both military and non-military under seven heads.⁹ A similar study by them has been undertaken of the Sino-Indian conflict of 1962 (minus the weapons-analysis at the time of hostilities).¹⁰ The conclusions of the MIT study are, that while there was good ground for believing that arms competition between India and Pakistan had stabilized, it was the Sino-Indian conflict and India's arms acquisition in response to the new threat, that reintroduced mutual concerns leading to the 1965 war.¹¹ As for the pattern of the arms race, it was competitive until 1959, stable ratio 1959-62, steady growth 1962-65 (all in phase IV₁). In the case of Pakistan there was a sharp growth after Phase III₂.

THE SOUTH ASIA CASE POST-1965: APPLICATION OF THE MIT MODEL

It may be useful now to apply the MIT model of the phases of conflict and its linkage with the weapons inventories of the two regional actors in South Asia, to the pre-1972 and post-1972 period, following the Indo-Pakistan war. In the period 1965 to 1968, the Indo-Pakistan conflict was in Phase IV₂, as already indicated in the MIT Study--a period when Pakistan's inventory in combat aircraft had almost doubled for the post-1968 period, additions have been made in the graph of the MIT study in Appendix 5. In 1971-72, once again the conflict appears to have entered the Phase III₃ model, and in the post-1972 period the Phase IV₃ and IV₄ models. Since the exact scale and basis of tabulation of the MIT graph for the 1954-65 period is not known, the attempt to develop the graph further for the post-1968 phase, alongwith the phases of conflict may at best be an approximation.¹² However, the broad trends in the inventory patterns of the combat aircraft and of tanks have been indicated and are outlined here as follows. In general, the aircraft inventories of both countries showed an upward trend in the period preceding the 1972 war, and in the years following it.¹³ In the case of India, in 1972 itself, about 150 HAL/MIG 21 MFs were produced under license and another 200 HAL/Aerospatiale SA-315 under licensed production with France again in the same year. This trend has continued thereafter. In October 1978, the agreement for the purchase and licensed production of 200 Jaguars with U.K. has been referred to in the earlier part of this paper.

The *Military Balance* of 1979-80 mentions the total number of combat aircraft with India as 620 as against 625 in 1970-71 i.e. the pre-hostility and hostility period. In the case of Pakistan, it has a total of 256 combat aircraft in 1979-80, as against 270 in 1970-71. In both cases, the same level has been maintained, and the losses in the hostilities have more or less been compen-

sated. As for Pakistan, the peak reached in 1967 was maintained right until the outbreak of hostilities in 1971. In 1972, she acquired 60 F-6 (MIG-19s) from China, 50 Mirages from France; in 1976 she acquired 47 Saab MFI-17s from Sweden and 40 Northrop F-5 Freedom Fighters from Iran. The *Military Balance* of 1978-79 places the strength of the Pakistani Air Force at 257 aircraft, which includes one light bomber squadron of B-57Bs (Canberras), four fighter bomber squadrons of Mirages, nine fighter squadrons of Mig-19 and F-86. They also appear to be phasing out the old-F-86 and adding the advanced version of the Chinese Mig-19 fighter bombers with better fire-control and navigational attack systems.¹⁴ In early 1979, there were indications that the Carter Administration was reconsidering Pakistan's request for the 110 fighter jets F-5s.

As for the tank inventories of the two regional powers both continued to show an upward trend in the post-1971 period as is evident from the chart below.

*Pakistan (Tank holdings)**India (Tank holding)*

Source : *Military Balance*

1970-71 (Phase III ₃)			1979-80 (Phase IV ₄)		
<i>Supplier</i>			<i>Supplier</i>		
(US) M-4 Sherman	50		(U.K.) Centurion	200	50
(US) M-47 Patton	100		(US) M-4 Sherman	250	--
(US) M-48 Patton	100	250	(Soviet) T-54/55	450	900
(Soviet) T-54/55	50	50			
(China) T-59	100	700	(Indian) Vijayanta	250	900
		76 P.T. 76 (Soviet)			50. P.T. 76 (Soviet)
	<hr/>	<hr/>		<hr/>	<hr/>
	400	1076 (i.e. more than double)		1150	1900 (less than double)

*Light tanks**Light tanks*

M-24 and M-41	Figures not given	50	Figures not given	AMX-13
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In the case of India, the post-hostilities Phase IV₃ maintained a steady level of the licensed production of Vijayanta (500 in 1967-73) along with 225 Soviet T-55 in 1968-7. In the case of Pakistan too, her acquisition pattern showed the same trends of upward increase. In the prehostility period she

had got 150 T-54/55 (following the Soviet-Pakistan Arms-deal of 1968), 20 PT-76 in 1978-79, 110 T-59 from China in 1972 and 300-M-113 from the U.S. in 1975. It appears that Pakistan had more than compensated for its tank losses of the 1971 war. Its armoured strength in 1979 stood at 1,000 medium tanks, 65 light tanks. In 1971 it was 575 medium tanks and 295 light tanks.¹⁵ To this extent then its upward curve for arms inventory in the phase IV₃ and IV₄ period would have been sharper than in the case of India.

As before, the MIT model of conflict and its linkage to arms acquisitions was found to be useful in its application to the South Asian case in the context of the 1971 Indo-Pakistan conflict. For purposes of analysis, the data and findings of the MIT model of conflict and its linkage with arms acquisition with respect to South Asia (1949-65), and its application by us to the South Asian region in the period following 1965, (i.e. the pre-1971 and post-1971 conflict has been codified in the chart given below.

**South Asia : Conflict situations (1949-1971) and
Linkage with Arms Acquisition**

	Pre-conflict Phase	Conflict Phase	Post conflict Phase	
1949 Indo-Pakistan hostilities in Kashmir	--	--	INDIA	PAKISTAN
			Combat Aircraft	Steep rise (1954-59) Not so steep-rise (1954-59)
			TANKS	Sharp Increase (peak in 1957) Sharp Increase (peak in 1960)
			Pattern of Arms Race	Competitive Until 1959
1962 Sino-Indian War	Pattern of Arms Race)	Stable Ratio (1959-62)	Pattern of Arms Race	Competitive again, on account of India's Arms acquisitions, following her defeat in 1962.
	Tanks	During (1959-62, both India and Pakistan stabilized their levels roughly till 1962.		

1965 Indo-Pakistan War	Pattern of Arms Race	Steady growth (1962-65)	Combat Aircraft	INDIA	PAKISTAN
		Growth in India's Tank inventory, following her defeat in 1962, surpassing Pakistan's inventory in 1965.		Status quo	Marked Rise (By 1969, it reached its 1959 peak).
			Tanks Pattern of Arms Race	Steady Rise Competitive (1965-69)	Steady Rise
1971 Indo-Pakistan War	Pattern of Arms Race	Steady growth (1969-70)	Combat Aircraft	INDIA	PAKISTAN
				625	270
				620	256
Source	Military of fig- Balance	INDIA	PAKISTAN		
ures for		Combat Aircraft	Upward Trend	Growth	Steady level
Combat Aircraft and Tanks (1970-80)			The peak reached in 1969 was maintained until the outbreak of hostilities in 1971	Tanks (1970-71) 1150 (1979-80) 1900	400 1076
				Growth : Less than double Pattern of Arms Race : Competitive	More than double 1971
		Tanks) Steady rise			

Based on the data and findings stated in the above chart it would be interesting to see if any direct causal links could be established, and if so whether any pattern could be discerned in the linkage between conflict and the arms-acquisition process in the South Asian Region.

- (i) 1949 Conflict : Post-Conflict: Pattern of Arms-Race was “competitive” in the post-conflict phase with an overall sharp increase in both combat aircraft and tank inventories of both countries, with the difference that Pakistan’s combat inventory does not record a sharp rise.
- (ii) 1962 Conflict) Pre-Conflict: Pattern of Arms race stable ratio (1959-62), Sino-Indian
Post-Conflict: Pattern of arms race competitive (although Pakistan was not involved in the Conflict),
- (iii) 1965 Conflict: Pre-Conflict: Pattern of arms race (1962-65), steady growth.
Post-conflict: Pattern of arms race competitive, with the difference that India’s combat inventory does not record any appreciable rise.

- (iv) 1971 Conflict: Pre-Conflict: Pattern of arms race (1969-70); steady growth, with combat inventories of both countries recording an upward trend.

Post-Conflict : Pattern of Arms race; competitive. In the case of combat aircraft inventory, *India's* rise is sharper, and with respect to Tanks, *Pakistan* almost doubled the figure of medium tanks in 1971.

From the above hence, it would appear that in the case of all four conflicts, the post-conflict phase was marked by a "competitive" pattern of arms race, and it would thus point to a direct causal link between conflict and a competitive-arms-acquisition-process. In the pre-conflict phase, which in a way forms the tail-end of the "competitive", post-conflict phase of the preceding conflict, it appears that in two cases (1965 and 1971), the pattern of arms-acquisition had tapered from "competitive" to a "steady growth" pattern. In one case i.e. the pre-conflict phase of the Sino-Indian war of 1962, in which Pakistan at any rate was not involved, the pattern of arms acquisition, which had been sharply "competitive" in the post-conflict phase (1954-59), had indeed reached a stable ratio from 1959-1962. In this context, it would be interesting to compare the findings in the South Asian case with the situation obtaining in areas of regional conflicts in other parts of the world through a similar application of the MIT model. However, the extent to which the arms acquisitions process in South-Asia was "fuelled" by the arms transfer policies of the extra-regional powers and the nexus between the latter two and regional conflict, forms the subject matter of another study undertaken by this author.¹⁶

(Concluded)

Notes

¹MIT study, Amelia Leiss et al, *op.cit.*, pp. 282-287.

²*Ibid.* p. 266.

³*Ibid.* p. 287

⁴*Ibid.* See pp. 63-73.

⁵See *Ibid* pp. 287-288 and also Bloomfield, Amelia Leiss *The Control of Local Conflict : A Design study on Arms Control and Limited War in the Developing Area, Controlling Small Wars: A Strategy for the 1970s* (New York: Alfred. A. Knopf, 1969).

⁶The chart entitled "Operational Combat Aircraft Inventories: India and Pakistan : 1954-1968 appearing in the MIT study *op. cit.* end.

⁷MIT study *op. cit.* p. 310

⁸According to the MIT study, this trend could be attributed to the fact of India acting on the possibility of a Sino-Pakistan Collusion (*Ibid*).

⁹MIT study II *op.cit.* (see endnote 75) pp. 317 to 344.

¹⁰*Ibid.* pp. 347-390.

¹¹MIT study *op.cit.* (see endnote 15) p. 325.

¹²See Appendix V.

¹³These conclusions are based on the figures given in ATR, SIPRI *op.cit.* 1975, pp. 32-41.

¹⁴"Arms Build up in Pakistan", India abroad (New York), January 12, 1979.

¹⁵*Ibid.*

¹⁶"Soviet Arms Transfers" For some more articles on this "nexus", see the following: Stephen Cohen "U.S. Weapons and South Asia: A Policy Analysis".

UNITED SERVICE INSTITUTION OF INDIA

The Council of the United Service Institution of India during its last meeting on 18 December 1991, keeping in view the increase in cost of paper and printing charges of the USI Journal as well as increase in cost of general provision of administrative facilities to the members, decided that w.e.f. 1 January 1992, the revised membership and subscription rates will be as follows :-

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Flight Safety Programmes : Need for a Professional Approach

AIR VICE MARSHAL S S MALHOTRA, AVSM, VM (RETD)

Man's quest for flying and space travel has been as old as mankind itself. The success achieved by man in this field may be of a recent origin, but the sense of adventure and the efforts to achieve the fulfilment of this goal have been fairly old. We may well claim that this goal has been achieved through the ingenuity of human race, yet the accident rate and fatalities have been painfully distressing throughout the recorded history of aviation. These accidents and fatalities lead to waste of skill and resources, ultimately delaying the progress considerably. With the rapid growth of Civil and military aviation in the service of mankind, the problem of accident prevention and flight safety has attained an ever-increasing importance.

Technological advancements and operating environments and techniques have undergone radical changes during the last few decades. Aviation no longer caters for man's satisfaction or sense of adventure alone. It affects all aspects of human life. At the same time mankind has had to pay for it a very heavy price. Hence the necessity to preserve our precious resources and the deep concern of civil and military aviators to promote and ensure greater safety. Accidents to aircraft pose an internal threat to the successful employment of Air Power in peace and war and degrade its capability.

IAF AND FLIGHT SAFETY

Indian Air Force has grown over the years steadily, and its growth and effectiveness as a fighting force has not only to be maintained but also increased. We cannot afford to relax in our efforts in achieving the highest possible targets of accident prevention and flight safety, more so in view of our scarce economic resources.

The accident rate in the IAF has been varying over the years. However, it can be safely said that our accident and incident rates favourably compare with many other air forces. But the accident rate by itself is not of much significance. What is relevant and more important from the accident prevention point of view is the analytical study of the available data, type and nature

Air Vice Marshal S S Malhotra is a very experienced VVIP transport pilot and was Addl. Director-General National Cadet Corps.

of accidents and of course the most probable cause of those accidents. Once we are able to accurately diagnose the causes of accidents, the remedial and preventive measures can be planned and implemented meaningfully.

CLASSIFICATION AND STUDY OF ACCIDENTS

Accidents are occurrences which have been defined and categorised differently from time to time so as to enable the operators to collect, collate and classify relevant information to chalk out and implement accident prevention and flight safety programmes. Broadly, these occurrences are divided into accidents and incidents, depending upon the seriousness of the occurrence. Further, they are subdivided cause-factor-wise to identify the areas of weakness in a bid to minimise and eliminate such accidents. All this appears very simple, but the extent of success achieved in this field has not been proportionate to this apparent simplicity. We can even say that in this regard the success has eluded us and our efforts have not been rewarded.

STATISTICAL ANALYSIS

Before an attempt is made to outline these elusive factors, a critical look at the statistical analysis is essential. Incidents are supposed to be, and are actually, the forerunners of accidents. A minor incident not remedied in time will result in an accident. A perusal of statistical data reveals that for most of the incidents the attributed causes happen to be 'technical defects' and for most of the accidents the attributed causes are 'human error', particularly of air crew. No doubt, it can be argued that when 'lesser mortals' like technicians make a mistake, it results in an incident but when the important ones, who handle costly equipment at such high speeds make even minor mistakes, the result is bound to be a 'big bang' and hence they cannot afford to make mistakes. This is a simplistic answer to explain a mysterious situation, which does not admit a simple answer. Only if we make a truthful and sincere attempt to solve this mystery, we can hope to achieve a meaningful break-through in the field of accident prevention. Also, our efforts should be oriented to study and to isolate factors responsible for this transformation and conversion of technical defects causing 'incidents' into aircrew errors, resulting in accidents.

THE ELUSIVE FACTOR

As mentioned earlier, the recent technological advances in the field of civil and military aviation are of a phenomenal nature. The efforts in the field of research and development are almost ceaseless; the designs are almost perfect; the operating and handling procedures are almost flawless; and the

operating environment is constantly under review to meet the changing operational requirements. Then why is it that the solution to the problem is not in sight?

LIMITATIONS OF EVIDENCE AND INVESTIGATION

Any time an occurrence takes place, it is difficult to diagnose its cause unless the evidence is absolutely clear. If there is a tendency in those directly or indirectly involved in such occurrences to justify their respective decisions and actions irrespective of the truth, the reconstruction of the events becomes difficult. The evidence starts getting distorted. Interpretations of orders, operating and maintenance instructions and SOPs start differing to suit the occasion and the very purpose of the investigation is defeated. Unless the evidence is absolute and unchallengeable, the cause is not accepted. Unfortunately, however, such evidences are available only in the case of minor occurrences. That is why we find that causes are determined only in such cases.

However, in the case of major occurrences, even without fatalities, the positive evidence to pinpoint attributability is seldom available since minor technical disorders that could lead to major breakdown are either undetectable or, even when found, tend to get classified as "secondary damage due to impact". It gives rise to phrases like "unresolved", "isolated case", "most probable cause", "inadvertent operation by groundcrew or aircrew", or "no design/maintenance deficiency", etc. The situation is worse when there are fatalities. Positive evidence is even more scarce. If the loss of property, equipment and life is heavy, impulsive reactions can be more or less predicted with certainty. These lead to a correspondingly greater pressure to catch the individuals responsible for the mishap rather than finding out the cause of the mishap.

The investigations thus tend to sidetrack and miss the real cause of the accident. Ignorance and inexperience often gives rise to phrases like "it can never happen", "impossible", "technically not feasible", "only imaginative" etc. Elements of false sympathy, misplaced loyalty, institutional and class interests, personal pride, false sense of esprit de corps and a host of intangible and undefinable factors creep into the business of accident investigation, particularly in case of accidents pertaining to "human failure" class. As such the real issues automatically escape notice and so do the remedial and preventive measures. Thus it is seen that the problem is more ethical in nature than technical or scarcity of resources or technical know-how etc.

CONSEQUENCES OF HUMAN LIMITATIONS

Logical conclusion of the points mentioned above leads us to infer that:

(a) Complexities of human nature constitute a strong barrier in formulating effective accident prevention programme to enhance flight safety.

(b) Also, the same complexities cause accidents by preventing timely diagnosis and remedial measures.

(c) If unchecked, these complexities lead to indifferent attitudes at certain crucial working levels which in fact reverse the progress made by flight safety programmes. If timely remedial measures are not taken to control the vagaries of human nature, the progress of aviation as a whole may be jeopardised.

(d) Often shortages of equipment or supervisors or expertise tend to be considered as causes of accidents. Logically speaking, these shortages should lead to lower serviceability and flying effort and not to higher accident rates.

PLAN OF ACTION

Having talked about the problems of flight safety, analysed the statistics, studied the emerging patterns and isolated the areas which need to be treated on priority, let us think of the remedial measures and chalk out a plan of action to achieve a breakthrough, hopefully.

There is no panacea to remedy the problems and factors responsible for the incidents and accidents. However, it is possible to overcome them if tackled logically and systematically. These actions can be divided into two categories - simple actions for simple problems and complex actions to deal with complex problems. It is obvious that the complex actions would require great attention and time to implement than the simpler ones.

SIMPLE ACTIONS

It would be better to call only those actions simple that deal with problems that are perceptible, i.e., which can be seen, weighed, qualified, quantified, measured, identified, isolated and therefore eliminated. A few of the simple actions are described below:-

Reporting : All incidents must be reported meticulously, accurately and promptly. This can be achieved by educating personnel in the field about the purpose and importance of accurate reporting of all occurrences of general nature which have a bearing on flying and flight safety. The present procedure of reporting can be simplified and, if required, it can be preserved in the form of SFSO's diary and kept or compiled as an information pool rather than raising the usual eight copies (for minor incidents only). All occurrences, irrespective of their magnitude, must be recorded and reported. This will form a technical occurrence information pool. Further, a trophy for 'reporting' can be instituted as an incentive in place of one for 'nil occurrence'. A large number of incidents accurately and promptly reported will definitely help in formulating a more practical and purposeful accident prevention programme.

Follow Up Action : Incidents reported should be attended to by competent persons, and analysed correctly and objectively. If the definite cause of an occurrence is not established for some reason the case should not be treated as isolated or 'first of its kind' and closed. A study or research cell should be formed to undertake the analysis of such 'elusive' occurrences till they are resolved. This, in turn, will help in avoiding a second 'isolated case'. Also, this cell will have enough data available to consider the large number of possible malfunctions while investigating major mishaps, when evidence is not readily available. This exercise will eventually suggest correct remedial action.

Information Feedback : Once an incident is reported, the feedback on the action taken must be communicated to the reporting or operating agency (ies) promptly. If it is not possible to give definite information, at least a tentative report should be provided. This will help to build up the required confidence in the system and create a better rapport between the operator or reporting agency and the repair agency or authorities. This rapport is sadly lacking at present.

Time Frame : While it is essential to determine the cause of an incident as soon as possible so as to initiate preventive action against its recurrence, undue hurry and setting up unrealistic time-frames should be avoided. Impulsive reactions and over anxiety can lead to pressure, which makes the investigator's task more difficult. The urge to know what could have happened can lead to prejudging the issue or to preventing the causes from being reviewed in their correct perspective. The purpose of inquiry may thus be defeated.

COMPLEX ACTIONS

These are largely psychological in nature. Here the problems are such that actions to solve them are dependent on human interactions and ethics. Any misunderstanding, communication gap or things of similar nature may act as a barrier to the launching of an effective accident prevention programme. This is due to the very complexity of human nature which is unpredictable, imperceptible and abstract and likely to be interpreted differently by different individuals. A few areas, where the actions relate to the complexities of human nature, are discussed below.

Overcoming 'I am OK, you are not OK' Attitude : Ideas, suggestions and reporting of malfunctions even from non-specialists, if encouraged, will yield good results. If a ground crew or technician points out something about the mishandling of a system or a procedure by aircrew it should be given due attention rather than brushing him aside by saying, "what does he know about this". Similarly, when an aircrew mentions something about technical aspects, it should not be ridiculed by the engineers. We must create a climate in which people are motivated to find out their own faults in the event of an incident, mishap or occurrence. This will not only enhance the safety potential but also improve their own ability and performance thereby improving their status, prestige and image.

Removal of Fear Psychosis : Even amongst the well educated, knowledgeable and intelligent human beings, it is extremely difficult to overcome 'fear'. Fear psychosis is of two types :

- (a) One is of manifest type, e.g., imminent danger to which people can react openly.
- (b) The other is of the latent type. This causes no apparent reactions, but can generate mild apprehensions, excuses, escapist tactics, retaliation rebellion and even outright lies. In short, this type of fear prompts individuals to resort to unpredictable behaviour which far from serving institutional interest, may prove detrimental to it. This can be overcome only by making individuals conscious of such a phenomenon and educating to overcome their latent fear to a great extent.

Overcoming Minor Irritants : Minor irritants exist at all levels and in every sphere of life. These cannot be entirely eliminated, but with due care can be reduced. One of the irritants is non-availability of materials readily, due to slackened procedures or antiquated equipment. Equipper trying to prove his superiority over the technician and the administrator over the workers,

non-availability of accommodation, irregular meal timings, mess dress regulations, non-adherence to working hours, short-notice commitments, lack of proper aircrew comfort, over supervision resulting in interference, audit objections, under-utilisation of existing support resources, pillion rider attitude, double standards, additional task without additional establishment and too frequent shifting of manpower to accommodate promotions are the other irritants generally experienced by the airmen. These are by no means invincible. Some of them can be easily overcome so that a harmonious working environmental can be created to achieve the ultimate goal.

Flight safety is not merely a slogan. It needs positive action to achieve a break-through in lowering the accident rate. This problem needs to be studied objectively and ethically involving a lot of soul-searching, constructive self-criticism and overcoming baseless fears. Ambition and impulsiveness should be relegated to a secondary place. Indeed there is no place for them in an accident prevention programme. Flying should be treated as a profession and a serious business and not as sport. Make any number of rules and regulations, but abide by them. If they do not suit, change them, but do not break them. Setting up good personal example at all levels and creative imagination will yield handsome dividends. All sides and parties should be well represented and should have equal say in determining the true cause of an accident and remedy, the emphasis being on WHAT rather than WHO - caused the accident.

USI GOLD MEDAL ESSAY COMPETITION - 1991

On the recommendations of the Evaluation Committee, the USI Council during its meeting on 18 December, 1991, selected the following officers for the award of prizes in the USI Gold Medal Essay Competition - 1991:

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Captain Akshaya Handa	First Prize	Rs. 2,000/-
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The Education of the Service Officer

LT GENERAL M L THAPAN, PVSM (RETD)

There is, perhaps, no better definition of the purpose of education than that spoken by John Milton who said: "I call, therefore, a complete and generous education that which fits a man justly, skillfully and magnanimously for all the offices, both private and public, of peace and war"

When Independence came to us forty odd years ago, it was evident to thinking Service officers that no longer could the Armed Forces continue to live in splendid isolation, however much they tried; to be a people apart, blind to the various forces - political, economic and social - which were at play in our own country and elsewhere. If anything, this reality has been reinforced by the course of subsequent events. Field Marshal Sir Claude Auchinleck, the last British Commander-in-Chief of the undivided Indian Army, foresaw this imperative necessity. The National War Academy, which was his brain child, as the most fitting memorial to be set up in tribute to the gallantry and sacrifice shown by the Indian Armed Forces in the Second World War, was to incorporate two novel concepts. One, that officers of the Army, Navy and Air Force would receive pre-commission training jointly, at a single establishment and two, that the four year course of study would be comprehensive, covering the Humanities, modern languages, Sciences and Engineering, leading up to the award of a University Degree. The Partition of India and subsequent events changed these concepts; a National Defence Academy was set up, but joint training was reduced to three years, and the course of study dropped below university level. Twenty seven years were to elapse, before concerted effort saw the restoration of the original concept of cadets passing out of the National Defence Academy as university graduates. The sad comment is that though we claim to be a developing society, we still harbour a body of opinion, held by those in positions of authority, who believes that the profession of arms is the last refuge of a person with brawn and without brain.

If we are to move forward to meet the challenges of the difficult decades which lie ahead of us, we must have in our Armed Forces a breed of officers who are enlightened and perceptive leaders, articulate and with minds of their own, trained to cope with the demands of an increasingly complicated profession, and able to interact with politicians, administrators, scientists and

Lt General M L Thapan was General officer Commanding-in-Chief Western Command, and retired as the Vice Chief of the Army Staff in 1974.

eminent persons in other walks of life. They must be prepared to face tricky national and international problems, which may and do, have little or nothing to do with being a soldier, sailor or airman. We cannot afford mediocrity in the ranks of officers; the rank and file who they now command are increasingly more enlightened; they too are being called upon to perform more and more complicated tasks. They are no longer simple, uneducated persons; they have a higher professional and academic background, and are much more conscious of their rights and privileges. Such men deserve leadership of the highest order from officers who are mature and understand the subtleties of human relations. The Service officer of today and tomorrow must have a positive perspective on fear, command and personal relationships; he must be aware of the vital humanities, public administration, history, comparative religions, political science, international relations and contemporary affairs. His professional knowledge must be such as to enable him to use effectively the increasingly complex weapons and equipment he now has to handle; to appreciate and understand the changes in the art of war which current campaigns reflect; and to contribute in full measure to the research and development of our own weapons and equipment which, if we are to respect our independence, must progressively be designed and manufactured indigenously.

How far do we measure up to this desiderata? At the pre and post commission levels, the officer training schedules of the Armed Forces concentrate on the attainment of the highest professional standards. Their training institutions are models of excellence and no effort is spared to retain their high reputation. Fortunately, and perhaps because of their unfamiliar, specialist vocational character, they attract little political interference; though at the pre-commission establishments, ministerial responsibility is invoked in determining the withdrawal of sub-standard officer material. The logic of this interference defies comprehension, and it is only when the Services take a principled stand that this dictation is resisted. Weak personalities in charge, otherwise, are ridden over, to the detriment of their Service. The training programmes for middle piece officers and unit commanders are job-oriented and comprehensive. Tactical and technical concepts are thrown open for discussion, and much value is derived from an exchange of views, gained from practical experience in varied operational and other locations.

A crucial area in the development of the officer, and one to which insufficient attention is paid, is that of the build-up of character. No vocation calls for more exacting standards of leadership than the profession of arms. There is no greater test than the trial of battle. Fighting men have an unerring instinct in judging their leaders by their actions in peace, and their

resolve in war is determined by the quality of that leadership. There is a saying in the Army that an officer is "on parade", in the eyes of his subordinates, for all twenty four hours of the day. It is here where his character comes into play. The ingredients of character in this context, are many; the foremost of which may be summarised as uprightness, moral courage, backbone and impartiality. These require visible demonstration. The true development of character is to be found in the day to day ethos and culture of the Service; training establishments can help only in its nurture.

If leadership is an exercise in the setting of example, then the process must begin at the top. There are, and can be, no schools of instruction in this art, for those holding high rank. They have to resort to self-education. There must be an awareness of the responsibilities of each rank to which one is promoted; there must be a corresponding broadening of vision, and a philosophical acceptance of the loneliness of command. Concurrently, there should develop greater understanding, tolerance, sympathy and ready approachability. The selection systems of the Services must guard against mechanical upgradation; screening must be objective as well as human and, though supersession is inevitable, on no account should they lay themselves open to charges of favouritism, leading to loss of confidence in the whole process. An unfortunate decision, reportedly taken recently, is that of not communicating the assessment of initiating officers, in annual confidential reports, to the officers reported on. This is totally foreign to the Service way of life, where frankness and candour are virtues which have been, and should be, cultivated zealously. The plain inference drawn from this action is that reporting officers lack the courage to tell their subordinates how they rate their performance. How they expect them to improve, without doing so, boggles the imagination, nor does it raise the credibility of their reports, which are the basis of the selection process. Above all, the Services must ensure that no dead wood rises to the top, for that is where the politician looks for pliable instruments, whose capacity for inflicting lasting damage is incalculable. To those familiar with our political scene, this caveat may be unnecessary; it is, however, well to remember that amidst the melancholy erosion of values and the rusting up of what was once regarded as the steel frame of administration, the people of this country look upon their Armed Forces as the sole remaining bastion, to preserve their unity and integrity. A great responsibility is therefore cast on them, not to fall prey to political skulduggery.

In the final analysis, what makes a senior commander tick? Is it not his superior professional knowledge, his moral stature, his freedom from bias, his openness to reason, his ability to arrive at well-considered decisions and his firmness in adhering to them, his capacity to distinguish between right and

wrong, his moral strength, in that he stands up to the Establishment on matters of conscience and principle, and his considerate humanity? If he answers to this description in the affirmative, then he can truly say with the poet Robert Burns:

"The rank is but the rubber stamp,
A man's a man for a' that".

(Courtesy, *The Statesman*)

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What is so Sacrosanct about Plassey ?

GP CAPTAIN D C BAKSHI, VSM (RETD)

Plassey is frozen in continuum of time. As "all events occur twice in History; first as a tragedy and then as a farce"; the adage holds good nowhere better than that in the case of Plassey.

Recently there have been serious objections in changing the nomenclature of its locale !!

Whatever be the contours of the unfolding episode, events of Plassey remind of a turbulent age when the local feudal chiefs soaked in the blood of mutual recriminations and internecine intrigues ignored national interests for petty personal gains and egos. They invariably fell an easy prey to foreign invaders, national interests taking backseats and rendering the country's borders reductio-ad-absurdum; each one trying to protect only his area of influence.

The Indian scenario during the middle of 18th century could best be summed up in Lord Macaulay's words. About the role of decaying Mughal Army, He said:

"During the last days of Mughal Empire, the Army instead of becoming a bastion of the imperial fabric turned into an agency for its destruction -----Like the proverbial wood-cutter they cut the very branch on which they were perched". And for the ruling class, he ruefully commented:

"A succession of nominal sovereigns sunk in indolence and debauchery, sauntered away life in secluded places, chewing bhang and fondling concubines and listening to buffoons-----".

The above description of politico-military landscape of India was neither a simplification nor an exaggeration; infact a glance at the various power-centres breeding intrigues and perverse disloyalties throughout the length and breadth of the country during that period would easily confirm the erudite scholar's convictions.

Alivardikhan was the last great monarch of Bengal who had married his

GP Captain DC Bakshi writes frequently on history and management. Till recently he was a Joint Director in DRDO/Ministry of Defence, New Delhi.

half-sister to Mir Jafar. With no direct descendent to succeed, Alivardi on his death-bed elicited total loyalty/trust of Mir Jafar for (eldest son of his second nephew) Siraj-ud-Daula whom he had nominated to kingship.

Unfortunately, the new king and the kingmaker both had serious differences right from the beginning and this resulted in occasional bouts of humiliation and heart-burning for Mir Jafar. The hiatus thus developed due to breach of trust had long shadows on the events to come.

The Battle of Plassey, termed as a 'great event' in Indian History was infact a disparaged conflict right from the time it was conceived and later executed with deceitful stratagem. At the most it could be termed as a non-event, a hollow political transaction of petty significance.

Militarily, it was an 'engagement' between 900 Europeans, 2100 sepoys and a few six-pounders on the British side and the low-paid dispirited lot of 18000 horses and 50,000 foot soldiers of the native army. The casualty score was less than 100 for Clive and only 500 on the side of Siraj-ud-Daula's.

Like most of Clive's earlier "Battles" fought on the Indian soil, Battle of Plassey too was a queer affair. A literal coup, unabashedly depraved and hatched in subterfuge and craftsmanship.

No military encounter this, there was hardly a plan to launch an attack, or a sincere gesture to defend; in modern parlance it could be dubbed merely as a skirmish, say, a barren bashup with minimal casualties. Clive had virtually won-over the loyalty and defection of conspirator bands of Mir Jafar's contingents. 12,000 of native soldiers under his command never in fact gave a fight!

(Flashes of battle scenes: SAMUGARH - The succession clash between sons of Shahjahan, Dara and Aurangzeb & disloyalty of Khalilul Rehman (Sir J.N. Sircar) & Kanua: Between Babur and Rana Sanga : Defection of Sallaidi at the peak of the hour (Col Todd).

Seeing the impending debacle, on that fateful day, no sooner the young prince (Siraj-ud-Daula) got the news of death of his trusted General Mir Madan; he hurriedly sent for Mir Jafar, awestruck and nervous; in desperation he threw his turban on his feet and 'begged' for his allegiance and loyalty. There was a deafening silence; the pleadings had no effect! Mir Jafar sent a message to Clive the same evening to hasten the launch of an attack. The decisive victory will be his; He flashed the message through a courier.

The diabolical parleys had dangerous consequences; the rout of Siraj-ud-Daula's troops gave a false impression to the whole country that a handful of British soldiers were able to 'defeat' the mighty army of a Viceroy of the Mughal Empire.

Battle of Plassey, an event of insignificant martial proclivities has been given currency out of proportion; it has been hailed as an 'epoch-making' event in Indian History.

"The fault dear Brutus is not in our Stars, but ourselves that we are (were) underlings" says SHAKESPEARE!! How does one explain otherwise the antidiluvian dynamics of historic philistinism linked with Plassey.

The two main actors Clive and Siraj-ud-Daula met their nemesis in ignominy. Their end was like an episode from the Greek Tragedy.

Clive died on 22 Nov 1774 under circumstances never fully explained. His suspected 'suicide' was due to an overdose of landanum (Opium). During the brief spell after his return from India, he was subjected to lengthy trials where all his achievements were questioned with dubious skepticism.

Siraj-ud-Daula paid heavily for his 'defeat'. After hearing that his forces were routed badly, he fled the city in disguise. Intercepted by a way-side pedlar he was hacked to death by an assassin hired by the vicious and blood-thirsty, Miran son, of Mir Jafar.

Stylistically, Battle of Plassey does not herald the echoes of the new order as universally acclaimed by the historians, it is too drab and bumptious, and is surely a melancholy instance of a forgotten "glory"; unworthy of perpetuation and chesterfieldian eulogiums.

Rudyard Kipling said years ago :

"Nations have passed away and left no Traces
And history gives the Naked cause of it.
One simple reason in All cases
They fell Because
Their People were not Fit"

If that be the casus-belli in general for the downfall of Empires, back home we have an equally stiff warning from our philosopher-scholar President Dr S Radhakrishnan.

"India was never conquered from without, it was always from within. she was subdued".

Letters to the Editor

Letters are invited on subjects which have been dealt in the Journal, or which are of general interest to the services.

I

NAVAL DEBATE

Sir,

I recently happened to come across "A Riposte to 'Navy's Blue Water Obsession'" pseudonymously authored by "Sage" and published in the January-March 1990 issue of the *U.S.I. Journal*. This "Riposte" was intended as a reply to Brig. N.B. Grant's article published in the July-September 1989 issue of the *U.S.I. Journal*. However, the author also took the opportunity to criticize several of my writings on the Indian Navy. Unfortunately, he only succeeded either in misrepresenting my claims or in attributing unfounded assertions to me. This letter is intended simply to set the record straight with respect to Sage's characterization of my work. It is not intended to refute his many substantive claims (most of which, being remarkably disingenuous, are worthy of a separate article) nor is it a defense of Brig. Grant's opinions. I think Brig. Grant has ably defended himself already in the April-June 1990 issue of the *U.S.I. Journal*.

(I) On page 56, Sage asserts that " ... as regards his Goebbelisian [sic] price tag of Rs. 18,000 crores for a carrier task force, the less said the better. He obviously has picked this price tag from his favourite naval analyst, Mr. Ashley J. Tellis..." This assertion clearly indicates that Sage has not taken the trouble to read my article, "Aircraft Carriers and the Indian Navy," (*Journal of Strategic Studies*, June 1987) wherein this figure appears. If he had, he would have realized that this figure is in fact Brig. Grant's and not mine. It appeared in Grant's article "Does India need more Aircraft Carriers", published in the *Indian Express*, December 12, 1986, and it was fully footnoted in my article as such (fn. #9). Further, if Sage had read my article, he might have understood that the figure of "Rs. 18,000 crores" was not used to make any assertive statement about the financial costs of an Indian carrier force. Rather, it appeared only in the context of discussing the "meager outputs [of the Indian aircraft carriers] in operational terms."

I have little difficulty in accepting that Brig. Grant's estimate may have been overstated in the Indian context. The crucial question, however, about the acquisition and life cycle costs of Indian carrier aviation, still remains unanswered. This question has been glossed over by Sage who, while extending himself to argue that carrier aviation is not as expensive as analysts like

Grant assert it is, very carefully shies away from providing any authentic appraisal of the costs himself. Instead, he deflects the discussion by irrelevant asides about soda-pop machines and by gratuitously recommending that Brig. Grant study the budgetary record and discover that the Indian Navy has never spent more than 10.8% of the defense budget—truly a clever *non sequitur*!

(II) On page 58, Sage gives notice that he "came across another article by Mr. Ashley J. Tellis, the high priest of [the] anti-carrier forum in India." This article is not identified by name (a common practice, but his vague discussion of it leads me to suspect that Sage is referring to "New Acquisitions on the Indian Subcontinent" published in *Naval Forces*, No. II/1990. He asserts that (i) I suddenly see the need for Indian carrier aviation; (ii) I overestimate the capabilities of Pakistan's Orions and Atlantics but underestimate the effects of India's carrier force; and, (iii) I overestimate the efficacy of Pakistan's submarine force but underestimate the lethality of Indian submarines. I cannot reply to the last two assertions in any detail within the scope of this letter, but the following remarks might clarify some of these issues.

For starters, this article was part of *Naval Forces'* annual survey of the world's naval fleets. I was not commissioned to discuss Indo-Pakistani force structures and operational interactions per se, but only how these might be affected by the new acquisitions of both navies occurring in the previous year. Since Pakistani acquisitions were substantial that year (in contrast to India's), I discussed only their effects on Pakistan's naval strategy. I did not discuss the merits of "India's air power at sea" and, therefore, Sage's claim that I suddenly "see sense" in the same is somewhat befuddling. In fact, my position on Indian carrier aviation is considerably more sophisticated than Sage allows and, as I have argued on several occasions, any analysis of Indian carrier aviation must take into account both political objectives and operational-technical considerations, including the opportunity costs of various alternate force architectures. When all these factors are considered, I judge the present V/STOL configuration of the Indian carriers to be of some *marginal* utility: I have explicitly affirmed that these carriers are capable of ASW missions and may in fact be competitive with larger carriers in this regard ("Aircraft Carriers and the Indian Navy," p. 158). But, it is equally true that they lack real multimission capabilities when considered both vis-a-vis Pakistan and vis-a-vis any Western fleet in the Indian Ocean. Given the lack of multimission capabilities, the question of whether these carriers are worthwhile investments becomes pertinent. This question has yet to be satisfactorily answered by anyone, Sage included. I have argued, therefore, that the V/STOL configuration of the Indian carrier force was problematic because it bequeathed India all the political disadvantages of being seen as an overbear-

ing regional power without any of the multi-mission advantages deriving from the possession of an aircraft carrier. In fact, if Sage had bothered to read "Aircraft Carriers and the Indian Navy", he would have realized that I have explicitly declared that my arguments were "neither a critique of the Sea Harrier nor of aircraft carriers per se and, [therefore] being context specific, [could] not be extended to V/STOL technology or carrier aviation indiscriminately" (p. 153). In light of this position, which I have consistently held all along, Sage's claim that I am the "high priest of [the] anti-carrier forum" and that I have suddenly seen "sense" is as irrelevant as it is inexplicable.

Further, and despite his unsubstantiated diatribe to the contrary, I have great respect for the Indian subsurface force and consider it to be one of the most capable elements of the Indian fleet. In "Securing the Barrack: The Logic, Structure and Objectives of India's Naval Expansion," *Naval War College Review*, Summer & Autumn 1990, I have in fact explicitly discussed the whole question of Indian ASW efforts conducted by submarines as well as counter-air operations conducted by Indian naval aviation. Therefore, Sage's claims that I "am antipathetic to [Indian] attack and patrol submarines but allow Pakistani submarines greater credibility," and that I brush off what Indian carrier aviation could do to the Pakistani MRA force, are baseless at best.

Finally, I might inform Sage that I have never claimed that "India is all at sea' with [Respect to] Pakistan's new naval might." He owes me--at least--the courtesy of quoting me correctly, no matter how vehemently he may otherwise disagree with my analysis. If he had chosen to read my articles in the original, as opposed to misleading news reports about the same, he would find that my conclusions bear scarce resemblance to the quotation Sage wrongly attributes to me.

May I also somewhat regretfully say that this "riposte" might have better utilized the Journal's space by articulating the rationale and requirements of India's naval force architecture instead of indulging in the same old tired Mahanianisms as well as spurious *ad hominem* attacks which now seem to be a staple in some discussions of Indian naval strategy. Both Brig. Grant's reply and Cdr. H.K. Nag's letter in the October-December 1988 issue of the *U.S.I. Journal* are worth re-reading in this connection.

Sincerely,

Ashley J. Tellis
MacArthur Scholar
Department of Political Science
University of Chicago
June 25, 1992

II

PROMOTION APPEALS IN CIVIL COURTS

Sir,

Under the caption 'Armed Forces need to avoid promotion battles in the Court - how a new system can help' (*USI Journal* Oct-Dec '91), Maj Gen Madhok (Retd) blames the defects in the existing selection system, for officers taking supersession cases to civil courts. He is of the opinion that, the present selection systems and promotion boards, are a relic of the bygone colonial concept, and have no place in the 21st century. He has advocated certain changes therein, which he feels will make the system tamper proof and cannot be circumvented.

If it is bad enough that, not only supersession cases, but even those of a disciplinary nature, are being referred in an increasing number to civil courts, however, what is even more serious that, in 90% of such civil suits, the decision is invariably given in favour of the officer and against the army. The question therefore naturally asked is, whether the fault lies with the system or in its application by today's leadership? The more pertinent question to be answered is, why in the good old 'honorable' days of yester years, no soldier, or hardly any, ever went to civil courts to settle his grievances or to get justice? The answer lies in the fact that, in those days, the soldier had more confidence in the moral values and integrity of his higher commanders, and had more faith in their sense of justice and fair play, than what he was today.

Gen Madhok advocates five criteria which he feels the existing system must satisfy, but doesn't. However, in none of the five, has any reference been made to the one criteria which so far has defied definition, viz Integrity. To take an example, under the para heading 'proof against meddling', he states, quote, "it is possible to eliminate a senior officer with a few adverse remarks where the COAS himself happens to be the RO or SRO. This is not a reflection on any individual, but a weakness in the system". He then goes on to state, "a selection board, with the COAS as the presiding officer seldom dare to go against his endorsement", unquote. I am afraid Gen Madhok is only begging the question, as in my opinion, if the first part is a sad reflection on the moral weakness of the COAS and not that of the system, the second part is even a sadder reflection on the sycophancy of officers of the selection board, not to be able to stand up to the COAS, where a matter of principle or a sense of justice is at stake.

No amount of procedural changes in the present system will prevent the officer from going to civil courts. Only a return to the traditional values, emphasising military honour and moral integrity in our officer cadre, will restore in the soldier his confidence of sense of justice in his commanders. The bottom line in the promotion battle, is not, and never has been due to any defects in the selection system. It is, and always has been, due to defects in the moral integrity of leadership.

Yours faithfully,

N B Grant, AVSM (Retd)
16-A Shanker Seth Road,
Pune - 411 042
31 January 1992

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International Relations After the Cold War*

LT GENERAL M L THAPAN, PVSM (RETD)

This is a book of great topical interest. Contrary to the hopes and aspiration of millions, who had gone through the trials of the Second World War, the peace which came in 1945 was an uneasy one. Tensions grew between the victors; the Soviet Union on the one hand and the United States of America and its Western European Powers on the other. Nationalist China which had been a member of Allied Powers during the War collapsed as an entity, after its defeat at the hands of the Chinese Communists. The latter were allied to the Soviet Union for a period of time, until ideological and other differences separated them. For 45 years after the end of the War, the World lived in an atmosphere of uneasy calm, popularly referred to as the Cold War.

The origin of the Cold War may be ascribed to the development of nuclear weapons. Prior to their existence, military might and professional skill, using conventional weapons, determined the outcome of most wars. The emergence of nuclear weapons and its proliferation amongst the wartime allies, changed their complexion totally. The awesome power of this new weapon which, if used indiscriminately, could lead to destruction so complete that, in the words of Albert Einstein, the distinguished nuclear scientist, there would be no victors in a nuclear war; only the vanquished. He prophesied that he did not know what weapons would be used in World War III, but he could say with certainty what would be used in World War IV - Stones.

The dramatic events of 1989 and 1990, and those which we have witnessed in 1991, have brought the long postwar era to a close. The collapse of the Soviet Empire in East Central Europe, the re-unification of Germany, and indeed the disintegration of the Soviet Union itself, has not only ended the division of Europe, it has posed new challenges to world stability. An economically revitalised Japan and a populous and resurgent China have joined the top ranks of the leading powers.

The essays in this book, by some distinguished American academicians,

* The Cold War and After: Prospects for Peace, Edited by Sean M. Lynn - Jones, Massachusetts, MIT Press, 1986, p. 256, \$ 14.95.

attempt to answer some serious questions which should bother world leaders. Why was the Cold War era, despite its tensions, so remarkably stable? Has war, in the dimensions of the two Cold Wars and other major conflagrations, become obsolete? What kind of international system will the future bring? Will this new world be at least as peaceful as the old? The writers are all men of great scholarship, historians, political and social scientists, and serious students of international relations. They bring their accumulated knowledge and perception to bear on the study of the scene of contemporary world politics.

The Editor Sean M Lynn-Jones, who is Managing Editor of the Journal *International Security*, and a Research Fellow at the Centre for Science and International Affairs, has written an admirable preface, summing up the views put forward by these eminent essayists. It would be tempting to quote extensively from this summary, but your reviewer must be content to refer to the themes which are central to the essays in this book. The first question is: Where are the most important causes of the War to be found? Do they lie within the configuration of the international system, or are they organic to the domestic political orders of states? In the examination of the international system, two diametrically opposite views are put forward. First, that a bipolar system, ie one in which there are only two main protagonists, is less prone to war, then a multipolar one, where there are several contestants. The bipolar system is best illustrated by the example of the two super-powers, the Soviet Union and the United States of America, who held the world in check from war, during the past 45 years. The multipolar system could be illumined by the state of Europe before the First World War. The argument runs that the possession of the capacity for massive nuclear retaliation, or mutual assured destruction, by both the Soviet Union and the United States of America, tends to impose self-restraint on them, and caution on the smaller, powers, not to let matters get out of hand. In a multipolar scenario, in the absence of nuclear weapons, situation obviously was very different. Then there were no external restraints imposed, other than those of aid received or likely to be received, from the allies of the contestants. A somewhat unusual theory has been put forward by John Mearsheimer, one of the essayists, that a nuclear proliferation in a multipolar setting should actually be encouraged, but it should be well-managed. Such proliferation would impose the same restraint as in bipolar settings in the absence of which, there may be a tendency to resort too readily to conflict, Mearsheimer is, of course, unduly optimistic in his recommendation to arm presently non-nuclear states; no system of control exists to ensure that nuclear weapons could not be used by them, without discrimination, or by accident. The suggestion is made by others that Germany should be the only one so permitted, because of its size and economic importance.

Another school of thought finds many causes of war at the level of the state. The obvious examples of this, of course, are Germany under Adolf Hitler, who was obsessed with the desire for undoing the wrong done to his country by the Treaty of Versailles; and Japan, who under its military masters, decided to impose a Greater Co-Prosperity Sphere, on its unwilling neighbours. The belief that democracies tend to be more peace-loving than autocracies is examined in depth. Though this does not always hold good, the argument is conceded that, by virtue of their open society, and accountability of elected leaders, the danger of war being started by them, is very much reduced.

An interesting subject of examination is how do international economic relations affect the prospects for peace? The nineteenth century liberal view that economic interdependence breeds peace, is now regarded as an oversimplification. Changes in the primary means of production - from agricultural to industrial, and then to post-industrial, in countries hitherto interdependent economically, may alter the incentives for war. Oil is one commodity which shall continue to be fought over, till such time, as an adequate alternative source of energy is developed.

In the discussion on whether war is no longer fashionable, another writer John Mueller argues that the stability of the post war world is part of a long term trend away from war - at least among the developed countries. This is so in the developed world, because of their experience of the terrible losses suffered in the two World Wars. What was once regarded as an acceptable, even glorious, instrument of state policy; the scale of destruction caused by the two wars caused a total repugnancy to their means of settling disputes. Mueller concludes that war among the developed countries is "obsolescent", like duelling, slavery, and other once-fashionable or acceptable practices".

This is a book in which every essay has to be read more than once, so as to gather its full purport. The rapid changes which have taken and are taking place in Europe, and what was once the Soviet Union tend to trammel even contemporary writing such as this. But those erudite essays do serve the purpose of stimulating the reader's thoughts. No one can predict what the future holds; however, a grasp of history and feeling for one's fellow human beings, may ensure the survival of the human race.

Cutting Edge of Technology*

MAJ GEN PARTAP NARAIN (RETD)

This very well produced book, in its third printing, is an expose on advances in electronics, which must be read by all thinking people. The nineteen authors who have contributed, are associated with industry, and are on very firm ground, when they write on the present state of art as well as the developments in the foreseeable future, in their fields of interest.

The essays on different topics, written by the experts, have been arranged in a pattern. Starting with the development of new technologies, microchips, printers, displays etc. We are led to wealth and its mastery, the present trend of replacing cheque books and bills with electronic funds society. The replacement of the written printed word with images. Finally the need for developing the necessary interface with the computer networks.

Progress on some of the technological developments achieved which may need further honing are mentioned hereunder:-

Dyanapaper --A book size computer, is foreseen. Its surface will be a flat panel display with light sensitive transparent covering. A rigid bar along its side will contain very high speed memory chips, processor and a battery. It would act both as a note pad and a work station, which could be taken anywhere. An extension of development of the lap computer it can be expected by the end of the century.

Speech Recognition--Capability of recognising continuous speech involving large vocabulary. An improvement on the present ability which is limited to a vocabulary of 20,000, will make computers user friendly.

Thermo Magnetic Optical Recorders--Optical storage and transmission of data in an economical manner is already available in Sony systems. Laser light is used for reading, optical discs 12 cm, costing under 2 \$, can store few billion bytes of information. It is expected that by compressing data, we would have a multimedia presentation of text with voice, graphics etc, which imparts information approaching human interaction. Hyper media--imaging capability--integration of images with computer based information systems

* Technology 2001 : The Future of Computing and Communications ed. by Derek Leebeart, Cambridge, M.I.T., 1991, p. 392, \$ 22.95 ISBN 0262-12150-6.

has already begun. Image servers which understand images and have ability to sift through an image bank may yet take time. Merging of computing with images will lead to hypermedia being available--for browsing through information.

Fractals--are objects that are not one, two or three dimensional, as are most objects. Dimensionality of fractals is fractional, between the integers one and three. Using fractals in visualisation of landscapes were created, in the film 'Star wars'. Architects can produce realistic representations of objects before they are built. Micro Electronics--great progress has been made in increasing the density of components. Intel in its i 486 CPU, produced in 1989, had 1,180,000 components on one chip. With 100 million transistors in Micro 2,000, a human brain equivalent can be achieved with 1,000 processors.

New Materials semi conductors from atomic tables III-V like-Ga As (Gallium Arsenide) introduced in the 70's have come into use. Working six times faster than Silica, these are essential for the terminals of Optical fibre systems, lasers and opto electronics. Future houses will be penetrated by optical fibre both for media and net working with other computers. Ga As is also required for digital circuitry of inter processor connections.

Some Developments in Process Are :-

Recognisers - These do not exist at present--these will enable transmission of written documents and graphics on paper to the encoded electronic domain. Later the electronic data will be reproduced, on paper using another printer.

Optical Computers-using Photons instead of Electrons. Such computers will be faster and dissipate less energy. It is also possible to have molecular computers, but these are further away.

Super Conductivity--is the tool of the future. Trials of room temperature super conductors--90 degree K (kelvin scale) have been made, this is well above 77 degrees K at which liquid nitrogen vaporises. Liquid Nitrogen is cheaper than milk, and is freely available. Reliability to make these materials stable is to be achieved.

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The future of computing and communications requires team work approach between the academics, industry and the Government. An essential input is excellence of education. Television has given children greater access to a larger vocabulary albeit passively. Its greatest crime is habituation. It does not produce an environment of curiosity, which produces intellectual activity. The present system of giving two computers to a school is like giving two pencils to a class!

This book is essential reading for all thinkers, highly recommended.

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Politics of International Economic Relations*

MAJ GEN MM WALIA, AVSM SM

The politics of international economic relations is generally viewed restrictively through an approach in which politics shapes the international economic relations. The subject is accorded inadequate perspective with particular reference to links between military developments and those in the economic and political structures as also to the nature and orientation to the developing world order.

The military debate in the above context has been a subject of interest primarily to the students of strategic studies and international politics and, therefore, political economists do not generally accord a synergetic approach to their analyses of the strategic tensions in their thesis on global political economy. Further, longterm issues concerning the relation between the ecological and the military, political and economic structures, generally tend to get neglected.

The studies of politics of international economic relations do not go into the ramifications of economic changes and structures that shape political forces but examine the issues in a restricted manner wherein their examinations deal only with how politics shape international economic relations and not vice versa. In fact, political economy must be viewed as an integrated field which encompasses the specialised disciplines of politics, economics and international relations. Political economy thus requires analysis of the way in which 'political' and 'economic' factors have merged together in a fundamental manner.

Going further from the concept of integrated political economy, for it to be contemporarily meaningful, it has to be accorded a globalised look in a world where nuclear weapons, integrated capital markets and global ecology have little regard for national boundaries. A global concept has more and more of relevance in modern terms, particularly, in the light of mass communications, wherein the world is likely to acquire a shape of unified single entity in terms of political economy.

* The Global Political Economy: Perspectives, Problems and Policies by Stephen Gill and David Law, New York, Harvester-Wheatsheaf, p. 394, \$ 22.90.

As a consequence of transnationalisation of economics, the world is likely to have increasing globalisation of production, capital and technology flows as also growth in world trade, often through the operations of transnational companies. This is often linked-up with military-industrial rivalries to some extent and orientation of state structures which can sometimes serve as limits of power and capital.

Following from the above concepts, various international scenarios and models can be visualised for the future. One such scenario could be as a result of internationalisation of the states and spread of liberal framework and thoughts aimed to promote economic growth through their national corporations. The second model of the possible global order is the one in which the world is fragmented into regional economic spheres. This would be non-hegemonic. The third model is based on the possibility of Third World based on hegemony in which a 'new international economic order' emerges.

Privatisation is likely to be a popular response to fast economic development in the Third World based on the experience of UK, which has successfully promoted privatisation and transnational hegemony since early 1980. In fact, the key factor of British policy namely 'property owning democracy' of the type having been adopted by United States since long, seems to be the model which the developing economies must adopt wherever feasible.

Ecological crises such as deforestation and spread of deserts cannot be attributed as a sole responsibility of the Third World. Developed countries are equally responsible for their acts of omissions and commissions resulting in global warming and environmental degradation primarily through chemical spillage and dumping of nuclear waste as also in view of the long-term effects of nuclear testing and experiments above and below ground.

Notwithstanding the ecological and ethical contents of the nature of the global linkages of economy as also ongoing militarisation of the earth and space, it is crucial that security, trade fiscal policies, communications and cultural dimensions of the global interdependence are accorded a holistic view. This could be in the form of 'global political economy in the context of nation-states developing a sense of belonging to one World and by identifying themselves more strongly with each other through developing a shared interest of cooperating to accord a global vis-a-vis national interpretation to their problems, policies and prospects. The book under review covers the subject in a comprehensive and innovative manner and is a worthwhile reading for those studying international relations concerning politics and economy viewed as an integrated whole.

IPKF in Sri Lanka

LT GEN A M VOHRA, PVSM (RETD)

It has become a common practice to criticise Indo-Sri Lanka accord of July 1987 and in particular the concept, induction, and performance of the IPKF more so since the election of Mr Premadasa as Sri Lanka's President in Dec 1988. Any number of people claim their forebodings of and opposition to the accord. What this "I told you so" attitude disregards is the fact that President Premadasa is primarily responsible for scuttling the accord as he was obsessed with the idea of speedy withdrawal of the IPKF from Sri Lanka irrespective of the consequences. He refused to work the accord and did not implement the devolution of power to the provincial council which was the most significant aspect of agreement to ensure national integrity along with provincial autonomy. The Perumal government was installed on Dec 9, 1988 and needed the IPKF to ensure security until it was able to raise local forces. With Premadasa's election in the same month, there was no hope of it getting any opportunity to do this. The Premadasa government did not accept the Indian government's stand regarding its obligation to ensure the security of the Tamil people or of the linkage between devolution of power to the NE Council and the presence of the IPKF. The installation of the National Front government in India, which accepted Premadasa's persistent demand for the immediate withdrawal of the IPKF, altered the situation further.

India's concern for the ethnic crises in Sri Lanka was natural. Geopolitically, the unity and integrity of Sri Lanka and the support of the existing state system in South Asia were and continue to be rational objectives. It was also necessary to ensure that the legitimate demands of a sizeable minority of 12.5 per cent or so of the population of Sri Lanka, the Tamils, concentrated primarily in the North and East of the island state, are met. Otherwise the backlash in Tamilnadu could be serious. In this context Indira Gandhi sent Narasimha Rao, who was then her Foreign Minister, to Sri Lanka soon after the July 1983 riots. Contacts were maintained and intensified subsequently. The accord was ultimately signed in July 1987.

Sri Lanka was sensitive to Indian interest in its internal affairs. It went to the extent of approaching the USA, the UK, Pakistan and Bangladesh for

* The IPKF in Sri Lanka. By Lt Gen Depinder Singh, Noida, Trishul Publications, Rs 225.00, ISBN-81-85384-05-3.

support against a possible invasion or intervention by India. The nature of response to this approach and the July 1985 assurance in respect of the territorial integrity of Sri Lanka inferred from Rajiv Gandhi's statement that "We will not support anything more than what is available in India" (provincial autonomy) made the accord possible. As the armed forces of Sri Lanka were not in a position to handle both the Tamil insurgency and the JVP uprising in the South, Sri Lanka asked for military assistance to implement the accord: in particular, to ensure "the physical security and safety of all communities inhabiting the Northern and Eastern Provinces" as also to enforce the cessation of hostilities.

In Chapter 2 of the book under review, the author analyses briefly the "Genesis of the Ethnic Strife", Jayewardane's motivation to seek Indian assistance as well as India's objectives. He also sets out clearly what the accord sought to achieve. In the next chapter he sets at rest the ill informed criticism that the induction of the IPKF was not properly planned. He surmises that contingency planning "had been going on in Army HQs since atleast April 1987, HQ Southern Command was involved in the planning process from about the fourth week of May 1987". The induction commenced on 30 July 1987, permitting Army HQ over 3 months and the Command a good 2 months to plan. It is quite another matter that the hope of taking over weapons from the LTTE and other Tamil militant groups in a peaceful and orderly manner was belied; internecine clashes among various militant groups continued as did fresh intake of weapons. In these circumstances, the force initially inducted (only a part of what was infact earmarked) had to be reinforced and ad hoc arrangements of the Army Maintenance Area proved inadequate.

As is the normal trend in all political struggles, peaceful or violent, the objectives of the LTTE lacked vision and were far removed from any semblance of statemanship. In the implementation of the accord, its leaders saw the avowed aim of Eelam threatened, their role as the sole protectors of the Tamil people challenged and did not quite like the idea of the ballot replacing the bullet. The author discusses these issues in Chapter 5 and detailed steps taken by the LTTE to sully the image of the IPKF, prevent Sinhla evacuees returning to the eastern province and sabotaged the Internal Administrative Council. General Depinder Singh observes that the LTTE was creating circumstances in which the IPKF could be forced to return to India.

Although certain incidents like the death of LTTE propaganda chief Thileepan on 26 Sept 1987 after fasting since the 15th and the suicide on 5 Oct 87 by 12 out of 17 LTTE cadres intercepted and taken prisoners by the

Sri Lanka Navy on the 3rd, acted as catalytic agents, the use of force against the LTTE had become inevitable and was ordered on 7 Oct 1987. The author has expressed legitimate reservation whether this course could not be stalled until "reinforcements, which were on the way, had arrived, been briefed and got oriented and then started operations". He suggests that more time could have been gained by freezing, in the first instance the "moral and material sustenance the LTTE has drawn from Tamil Nadu".

The operations for the capture of Jaffna were conducted with inadequate forces; in particular armour and artillery support. The LTTE are urban guerrillas and their mode of militancy includes pitched battles for which the attacking forces require supporting arms on near conventional warfare scales.

The capture of Jaffna was the beginning of the classic insurgency phase of the hit and run variety. LTTE cadres went into the jungles and the IPKF redeployed to meet this contingency. As the author mentions in chapter 7 "no insurgency.....can ever be settled militarily", a political solution has to be found. The military can only create an environment in which the militants find it necessary to talk. On this count, General Depinder Singh points to conflicting reports emanating from his HQs and the R&AW which prevented such talks which could have taken place before the end of 1987. R&AWs assessment obviously was that the LTTE's collapse was imminent. This was far from the reality. In this connection, no mention is made in the book of the unilateral ceasefire declared for 48 hours beginning 21 Nov 1987 to give the LTTE an opportunity to hand over arms and to support the Indo-Sri Lanka agreement. There was no positive response.

General Depinder Singh retired in Feb 1988 but not before, as he puts it, "The LTTE and the Sri Lanka Government worked out some form of rapprochement and both demanded the ouster of the IPKF".

The tempo of incidents slowed down somewhat from mid-Jan 1988 but insurgency continues. On 8 March Operations Trishul and Virat were launched against a number of LTTE camps which were destroyed. On 13 Aug 1988 Colombo-Jaffna rail track was blown up by the LTTE; 7 IPKF men were killed. The LTTE kept pressing political demands also, in particular the merger of the eastern and northern provinces. President Jayewardane did make this announcement on 30 Jan 1988. IPKF declared a ceasefire for 5 days from 15 Sept 1988, which was extended by another 5 days. While asking for this cease fire to be made permanent, the LTTE continued to collect funds and recruitment. However these matters including the elections for the Provincial Council in Oct 1988 are outside the purview of the book

which covers events only upto Feb 1988, when the author retired from the Army.

The book sets the record right on many issues. A chapter giving an appraisal of India's role in general and of the IPKF in particular, would have been useful even if the withdrawal of the IPKF took place only in 1990. Chapter 10 -- "After Thoughts", does not quite attempt this.

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Book Reviews

Field Artillery and Fire Power By J B A Bailey; *Oxford Military Press, 1989. p. 383; £ 14.50 ISBN 085066 811 5*

This is a comprehensive work chronicling the development of the artillery arm from the earliest times and the role artillery has played in battles over the ages. The author points out (page 5) that "Artillery developed as a means by which an enemy could be hit at longer ranges or with greater effective weight of fire than which infantry, cavalry, and later armour, would achieve. Artillery has been most prized according to its ability to undertake this task relative to other arms. As a result artillery has been seen either as the decisive arm on the battlefield, or more often as the arm which merely supports the front line troops who will decide the outcome of battle".

This has become obvious over the years, as artillery fire has become more accurate and more devastating. However artillery fire, when properly directed can have a crippling effect on enemy troops, but the *coup de grace* has to be administered by infantry/armour who can, under the umbrella provided by supporting gun fire, advance and overrun enemy positions.

However battle tactics have to be devised to suit a given tactical situation and the study of methods adopted in previous battles can only serve as a guide.

Bailey's work on "Field Artillery and Fire Power" is a book that deserves to be studied by officers of all arms.

— Col R Rama Rao

Sabre & Lance : An Illustrated History of Cavalry. By Peter Newark, *Dorset, Blandford 1987, p. 256, £ 15.95.*

Peter Newark needs to be commended for this eye-catching history of the 'horse and rider' compiled by him. The rare prints from his personal collection that he has made available for inclusion, lend a certain class to this book, which is not easy to come by. And if this be a pointer to things in the future - we should look out for the companion volume on the 'illustrated history of the footsoldier that he is working on. At this rate, this series should rank with the BBC television serial 'Soldiers', very soon.

— Lt Col A K Sharma

The Influence of Sea Power on Ancient History. By Chester G. Starr. *New York, Oxford University 1989, p. 105, £ 7.95.*

C.G. Starr, Bentley Professor of History Emeritus at the University of Michigan and founding president of the Association of Ancient Historians, has, in the book

under review, tried to apply Alfred Thayer Mahan's thesis, as expounded in his classic - *The influence of Sea Power Upon History*, - to ancient history. However, the author's parameter of the ancient world has not included any country other than the hellenistic world, plus Persia, the Roman Empire, and Egypt and Syria to an extent. In other words, the focus of his attention has been solely on the Mediterranean world. The purpose of this book appears to discourage the students of ancient history to universalise Mahan's theory in giving undue importance to sea power in ancient times.

-- Dr B C Chakravorty

The Proud Decades : America in War and Peace (1941-60) By John Patrick, *London, Norton, 1988, p. 381, \$ 26.95.*

The author, a professor of history at the University of California, has authored many other books, the notable ones being, 'Mussolini and Fascism: the View of America', 'The American Left in the Twentieth Century', 'The lost Soul of American Politics' and 'Up From Communism: Odesseys in American Intellectual History'.

The writer outlines the major events and trends of the 1940s and 50s, the two crucial decades which have created the conditions that governed subsequent American political thought. An overall survey, the book attempts to recount and often reinterpret American politics, diplomacy, society and culture, highlighting what the country was up against, what the people believed in and what they lived for. Opening with Pearl Harbour and ending with the election of John Kennedy, the book examines various 'themes' which characterised these two decades.

Well researched and documented the book brings out in fair detail the highlights of the two crucial decades - from the deplorable fire bombings of Dresden and Tokyo, the holocaust of Hiroshima and Nagasaki, through MacCarthyism and the 'Red scare' hysteria, the glorious performance of American youth during the 'good war', the economic reconstruction of both her war-time allies and antagonists to the spectacular break-throughs in science and medicine. The period witnessed the tenures of two Presidents, Truman and Eisenhower, each representing two different parties and each enjoying two successive tenures in office. It also witnessed the emergence of Martin Luther King, the civil rights leader; a young pastor who expounded the Christian gospel of social justice and an ardent admirer of Mahatma Gandhi and his 'Satyagraha' (truth force) movement.

Eminently readable, it is strongly recommended for study by social researchers.

-- Lt Gen P E Menon, PVSM (Retd)

Indian Response to the Second World War By Mansoor Ahmed, *New Delhi ,Intellectual Pub. 1987, p. 292, Rs. 134.00.*

The book is an attempt to study, analyse and interpret the Indian response to the Second World War including the postures adopted by the various political parties

to the British war effort in undivided India. It also examines the attitude of world powers towards India.

The author claims that the events of the war and the conflicting attitudes of different political parties and factions towards the war, led to social antagonism and intensification of class and caste divisions and these in turn provided the ammunition for mass enthusiasm for freedom. While the Congress held out for non-cooperation on the basis that "India would not fight for freedom, without herself being free", the Muslim League cashed in by gaining greater influence and leverage. The British Government utilised the basic pluralism in the political behaviour of the Indian people and parties to carry on their war effort without much hindrance or harassment. In fact, they viewed the growing rift between the Congress and the League as their trump-card, as their most powerful weapon against the demands of either.

The book brings out that the world powers, notably USA and China, sympathised with the Indian aspirations and did try to bring pressure on Britain to resolve the Indian issue. The conservatives in Britain, headed by Churchill and their nominee Linlithgow successfully thwarted such pressures as also the efforts of the Stafford Cripp's Mission.

The book is well researched and analytical. A useful addition to our reference library.

— Lt Gen P E Menon, PVSM (Retd)

Indo Gulf Economic Relations (Pattern Prospects Policies). Edited by A H H Abidi, New Delhi, Intellectual Publishing 1989, p. 122, Rs. 100.00.

Historically, the Arab states of the Gulf region have been very close to the Indian sub continent. While authentic studies of the historical phase of the Indo-Gulf relations have been made, it is necessary that studies are also made of such relations, in the contemporary period.

Indo-Gulf trade is of great importance to this country. This aspect assumes greater significance in view of the Gulf war & its likely ramifications during the post-war period. There are certain tangible & distinct aspects in the economic field, which need to be analysed. These & other related matters, were the subject of a Seminar organised at Jawaharlal Nehru University. Four core papers were presented. The papers dealt with, Indo-Gulf trade, Indian project exports to the Gulf, Manpower exports and remittances & Gulf investments in India.

These papers have been edited in this volume & offer a synoptic view of the whole gamut of Indo-Gulf economic relations, their pattern & prospects.

The editor of this volume Mr. A.H.H. Abidi, is a professor at JNU an expert on Gulf affairs. For 14 years, he served in the Ministry of External Affairs. He has published 35 research papers and three books.

— Maj Gen Ram Nath

A General Guide to the India Office Records By Martine Moir, *London, 1988, p. 331, £ 35.*

As is well known, the India Office Library and Records in London is a veritable treasure-trove of books, documents and photographs on the Indian Sub-continent. The author of the present publication is Martin Moir, both an Indian and an Indologist. The book itself is the first comprehensive account since 1858 of the unique holding on miles of shelves in the India office Library, and encompasses the entire history of the British presence in the sub-continent, commercial, political and military. In fact, the record covers much of South Asia as well, inasmuch as India was initially the base for much of the commercial and military operations of the British in the Indian Ocean. The record keeping today is very professional, and the records easily accessible to all researchers and readers. This General Guide is of considerable value both to researchers and general readers. It is fortunate for posterity that these records currently are so well provided and accounted for. A splendid publication.

— Lt Gen S L Menezes, PVSM, SC (Retd)

Jane's Infantry Weapons 1990-91, Sixteenth Edition. Edited by IAV V Hogg, *Surrey, Janes Information Group, 1990-91, p. 895.*

An excellent Book which maintains its reputation as an update arms encyclopedia. The foreword mentions absence of reportings on Flechette and Tumbler Bullets, and the expert's doubts on wounding capacity of low Caliber bullet weapons presently under development. It also puts forward a simplistic system of production of 4th generation weapons, computer designed, made of pressed steel components produced by computer fed machines.

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The 9 MM Sub-Machine Gun, U.K.

This Weapon only 27 MM long can fire 28-30 9 MM rounds at a regulated rate of fire-appears easy to handle, light weight close combat weapon.

The book is a worthy addition to any library

— Maj Gen Pratap Narain (Retd)

Economic Growth in the Third World : An Introduction. By Lord G Reynolds. London, *Economic Growth Centre, Yale University, 1986, p. 149, \$ 7.95 (Pb.)*

The book is an overview of the third world economic growth patterns. Till 1945 it was fashionable for the Western researchers and writers to focus on American and European economic studies. However, beginning in late forties a large number of studies were started in respect of newly liberated nations - which were initially dubbed as underdeveloped subsequently called less-developed and now are known with a more dignified term as the developing countries. This book is derived from Lloyd G Reynolds larger study, 'Economic Growth in the Third World, 1850-1980'. Thus it is a compact compendium of the original theoretical chapters outlining growth patterns of poorer economies.

— Major Jagmohan Singh (Kumaon)

Soviet Power and the Third World By Rajan Menon, *Yale University, London, 1986, \$ 20.00.*

The book bearing the above title has been written by Rajan Menon who is an Assistant Professor of International Relations at Leligh University and published by Yale University Press, London.

The book analyses the military aspects of Soviet policy towards the Third World. (The term Third World itself remains undefined, so also the First and Second throughout the book). The contents have been compiled from the writings of the Soviet scholars, mostly contemporary and tends to be academic; interviews with some leaders would have made it more realistic.

— Maj Gen K L Kochhar, PVSM

The Years of MacArthur, Vol III : Triumph and Disaster 1945-1964 By Clayton James, *Massachusetts, Houghton Mifflin, 1985, p. 848, \$ 29.95.*

This is the third and last volume of D.C. James on Mac Arthur, preceded by his earlier two, covering the periods 1880-1941 and 1941-1945. Perhaps, it is the most interesting and most important of all the three, because it has dealt with Mac Arthur reaching the top rung of his career as well as meeting his sudden downfall. MacArthur became a legend in his own life time as a General in three Major Wars - World War

I, World War II and the Korean War. He was one of the greatest military leaders of all times, but as an administrator of occupied territories he can be compared only with Napoleon Bonaparte. His problems in administering and democratising Japan, which was quite different culturally from Europe or America, were vastly complex, and from that angle, his social, political and economic reforms were perhaps more startling than Napoleon's. In an address of late 1951, while referring to the occupation of Japan he perhaps rendered his own best epitaph: "Could I have but a line a century hence crediting a contribution to the advance of peace, I would gladly yield every honour which has been accorded by war."

— Dr B C Chakravorty

Prospects for Peace Making - A Citizens Guide to Safer Nuclear Strategy Edited by Harlan Cleveland & Lincoln P Bloomfield. *Cambridge, MIT Press, 1987, pp. 159, \$ 15.00.*

The book records a joint venture of interactive dialogue among Americans - citizens and experts - over a year of consultative meetings, debates, forums with full coverage on public radio and television. A second Vol of the series "*rethinking National Security And Arms Control*" is a compendium of five papers and makes a moral bible to a sane nuclear threatened world scenario. The programme was conceived by four US organisations, funded by a billionaire, business and defence industry & managed by the Humphrey Institute of Public Affairs, University of Minnesota, USA.

— Col B S Sandhu

China's War with Vietnam - 1979 : Issues, Decisions and Implication By King C Chen. *Stanford, Hoover Institution, 1987, p. 234, \$ 18.95.*

This book is a product of long term interest by KING C CHEN in Sino-Vietnam relations. Unprecedented in scale and casualties, the brief Sino-Vietnamese border war in 1979 was the bloodiest military conflict in the fraternal communist world. The war had many causes. The ups and downs of the Sino-Vietnamese relationship in the past, the border incidents, the Soviet factor, the KAMPUCHEAN problem, and the overseas Chinese - all contributed significantly to the escalation of the conflict. Nevertheless, China initiated the war by launching a massive attack against Vietnam, Beijing attempted to achieve its foreign policy goals. As a result, the war not only affected Chinese-Vietnamese relations but brought about far-reaching international consequences as well.

— Maj Gen B D Kale

Deep Black: The Secrets of Space Espionage. By William E. Burrows. *London, Bantam, 1988, p. 401, £ 14.95.*

This is a book on the achievements of the USA in the field of spying with the aid of satellites. It ought to be of considerable interest to the general reader !

There is a powerful and influential coterie in the USA which is totally opposed to any arms negotiations. They contend that verification to ensure that limitations are adhered to is no longer possible due to advances made in missile technology; missiles are mobile, compact and can be made in conspicuous looking factories and in large numbers.

— Col R R Chatterji, AVSM (Retd)

J.F.C. Fuller : Military Thinker. By Brian Holden Reid. *Hampshire Macmillan, 1987, p. 283, £ 35.00.*

This book is an interpretative study of the military writings of Maj Gen JFC Fuller. Gen Fuller was a prolific writer and a professional soldier. He was an intellectual and was passionately interested in ideas and their development. He died in 1966 in his 88th year, having published his last and 46th book the year before.

Liddell Hart said 'I regard you as true example of genius'. One of his favourite themes was that 'The tools of peace are the weapons of war. I do not ask for faith in my ideas, but what I hope for is creative criticism'. Bernard Cricks wise words deserve careful thought. None of us can enter another persons mind, to believe so is fiction.

— Maj Gen B D Kale

The Grenada War: Anatomy of a Low - Intensity Conflict By Maj Vijay Tiwathia. *New Delhi, Lancer International, 1987, p. 250, Rs. 180.00 ISBN 81-7062-031-7.*

This book is a good starter for studying American intervention patterns after their continued set of misadventures in Vietnam, the Mayaguez incident, and Desert One in Iran. There is a solid emergent pattern thereafter.

'URGENT FURY' foretells the future. Post fact, the Americans set right their colossal C³I SNAFU'S which came to light in the conduct phase. As a historical footnote the deputy commander was one H Norman Schwarzkopf. This book emerged out of a dissertation written out in the course of higher studies pursued by the author. The world view of the higher seat of learning where he did so is apparent.

— Maj Shankar Bhaduri (Retd)

Nuclear Strategy and National Style. By Colin S Gray, *London Hamilton Press, 1989, p 363, £ 25.00 ISBN 0-8191-5333-8.*

A reputed expert on nuclear strategic issues, Colin S Gray has used his many years of experience on research on the topic, and some of his earlier papers, to prepare a cogent case how national style impacts on nuclear strategy. The idea is self evident. If deterrence is described as 'a set of beliefs in the minds of leaders, given their own values and attitudes, about the enemy's capabilities and will', it will essen-

tially mean a subjective consideration. Deterrence is also not affected merely through possession, but the perception in the minds of the adversary that the capability will be used, and in a manner that would effect unacceptable destruction.

The study examines the US and Soviet styles in strategy. US policies are examined from Nixon's National Security Decision Memorandum (NSDM) - 242 of Jan 1974, Carter's Presidential Directive (PD) - 59 of Jul 1980 and Reagan's National Security Decision Directive (NSDD) of Oct 1981. The Soviet perspective is based essentially on the premise of its being an "insecure empire" and hence inherently unpredictable. From these basic documents and assumptions a range of choice is offered to US decision makers on Nuclear Strategy, in the second last chapter.

The Book is replete with detailed information and excellent footnotes quoting authoritative experts on the subject. The Bibliography too is exhaustive. The topic itself has lost all significance today. The Soviet Union is history. The style of Russia is entirely defensive and hence is in no position to influence or even form coherent nuclear strategy. Hence the Book today is of passing interest only to serious students of nuclear strategy in a historical perspective.

— Maj Gen D Banerjee, AVSM

The Political Economy of Modern South Africa By Alf Stradler, Kent Croom Helm, 1988, pp. 197. ISBN 0-7099-2331-7

The book reasons how South African politics have been responsible for changing ways in which the region has been merged into the World economy. It reveals how gold mining industry has dominated other segments of economy and its effects in the process of industrialisation of the country. Incidentally gold mining industry is also responsible for evolution of class structure in South Africa.

The author for obvious reasons has toned down miseries of blacks, by giving coloured version. According to him racism survived in South Africa due to indigenous African culture. Was it so: Or was it the greed of Africans, to stick to power, by closing their ranks.

— Col B K Khanna, SM

The Indian Ocean Explorations in History, Commerce & Politics Edited by Satish Chandra, New Delhi, Sage Publications, p. 334, Rs. 190, ISBN 81-7036-059-5.

The importance of the Indian Ocean grew in the context of nuclear strategy as well as conventional gunboat strategy. To facilitate the smooth launching of the Polaris missile submarine, the USA began constructing the North-West communication centre in Australia and the base in Diego Garcia. The Soviet Union too had politico-military presence in the area. It was, however, unable to counter the Polaris threat from the Indian Ocean. Besides, its influence was declining in the Red Sea-Arabian Sea region.

The work under review is mainly based on the papers presented at an International Seminar on the Indian Ocean held at Delhi in 1985. The subject is of the deepest interest to students of international affairs in India. This is evidenced by the fact that the Delhi seminar resulted in the creation of the Society for Indian Ocean Studies (SIOS).

— Dr K M L Saxena

Korea: The War Before Vietnam By Callum A MacDonald. *New York, Free Press, 1987, p. 330, \$ 24.95 (ISBN 0-02-91621-3.)*

This book gives a detailed insight into the intricate working of the State Department, the National Security Council, the Pentagon; while keeping in mind the ground realities, the global strategic imperatives, the attitudes of the Western allies, the Third World and the opinion at home in the US versus the reactions of the Soviet union.

A fascinating study by itself which brings out that paradoxically the fate of Koreans was decided by others than the Koreans themselves whether by Russians, Japanese, Americans or Chinese.

— Maj Gen J N Goel (Retd)

Asean in Regional and Global Context Edited by Karl D. Jackson and others. *California, Institute of East Asian Studies, 1989, p. 357, \$ 20.00. ISBN-0912966-87-4.*

ASEAN in Regional and Global Context edited by Karl D Jackson, Sukhumbhand Paribatra and J. Soedjati Djiwandono presents the papers on politics and foreign policy of ASEAN States, regional relations and interaction with major powers of these countries individually and as a group. These papers reflect the negotiating force of the ASEAN States and the balancing process of contradictory requirements of the member states, for example, the Thais' attempt to woo the Chinese to keep Vietnam at bay while Indonesia and Malaysia are inimical to any such act that improves the Chinese posture.

These papers are interesting study of foreign relations and grouping based on economic and political compulsions of developing countries. The book in its entirety covers comprehensively the ethnic, political, social and economic aspects of the individual member countries and the necessity for existence of ASEAN.

— Brig Satjit Singh, AVSM, VSM

Indonesia Free : A Political Biography of Mohammed Hatta By Mavis Rose. *New York, Cornell Modern Indonesia Project, 1987, p. 245, \$ 10.50.*

Hatta's biography depicts the dogged determination, courage and optimism required by an Indonesian leader who could confront a colonial power and win independence for his country. He rose to be the first Vice-President and joint pro-

claimer of the Republic of Indonesia and devoted his entire life to an ideal.

Well researched biography which makes interesting reading.

Maj Gen Amarjit Singh

The Middle East-Ten Years After Camp David. Edited By William B Washington, *Brookings Institution, 1988, pp. 517, \$ 15.95.*

The book under review projects detailed analysis of the developments in the Middle East during the post-Accord decade by selected authors, who have dealt with separate segments of the Arab-Israeli Imbroglia as concerning different nations including USA and USSR.

In the context of some crucial developments since 1990, the break-up of the mighty USSR and the Gulf War to vet, the projections in this Book may seem to have lost some of their value. However the chapters "Inter-Arab Politics" by Grahame Salame and "Re-constituting the Arab-Israeli Peace Process" by Harold Saunders are valid and thought provoking, and therefore recommended for study.

Maj Gen S K Talwar

The US Maritime Strategy By Norman Friedman. *London, Janes Publishing, 1988, pp. 246. Price £ 25.*

Many books have been written by various authors on the US Maritime Strategy. This is yet another book on the same subject written by Norman Friedman who has to its credit a number of excellent books on naval matters.

The author has discussed various issues connected with the US Maritime Strategy in a chronological order starting with *Why a Strategy* followed by *National Strategy*, *Sea Power*, *Tools of Sea Power*, *The Strategy of Sea Power*, *The Soviet Style of Naval Warfare*, *The Maritime Strategy in Action* and lastly *The Future of the Maritime Strategy*.

Mr. Friedman is a long time naval analyst and the views expressed by him are thought provoking and would be of much interest to the strategists and the planners alike. However, with the Soviet Union's genuine interest in a peaceful world and development of good relationship with USA and Canada, the days of Cold War are almost over. Therefore, the US Maritime Strategy which is usually aimed at the containment of the USSR may need some changes.

The book on the whole makes interesting reading and should find a place in all naval libraries ashore and afloat. Recommended reading for all naval officers.

Capt R P Khanna, AVSM
Indian Navy (Retd)

China's Defence Modernisation and Military Leadership By NGOK LEE. *Sydney, Australian National University, 1989, p. 395 (ISBN 0-080330 460)*

The author evidently has been a close watcher of Chinese military developments and has in the book given an extensive account of the conceptual debate behind the processes that led to Defence Modernisation and Structural Changes in the Chinese military. The need, according to the reformists in the Chinese leadership, was for a crack regular force to deal with 'Future threats to the nation'. The PLA was seen as a flabby force which needed to be transformed from a peasant to a "lean and mean" army with young and better educated personnel and technologically very much more advanced systems.

While much has, according to the author, been achieved by all the Services and the Navy has grown from a Coastal Defence Brown Water Force to a Green Water Regional one, many weaknesses in the area of advanced technology remain. Many of the underlying assumptions on which the new strategies, concepts and doctrines were based have been overtaken by events. The primary threat was seen from the USSR which today constitutes a none too cohesive CIS. Afghanistan and Kampuchea are under the ambit of UN peace efforts. Personalities like Zhao Ziyang and Hu Yaobang, the architects of new thoughts are no longer on the scene and the direction in which Defence modernisation will move is unclear. Despite the four modernisations, shifts towards liberal ideas have yet to be fully accepted by the Party leadership, and ideologues. Ultra leftist thoughts and internal turmoil remain and many veteran military generals have serious reservations on the revised size, structure and organisation of the PLA. The political influence of the PLA has however, diminished with the retirement of older commanders and commissars. Today's military leadership is more youthful and favours professionalism and believes in separation of Party responsibilities from the PLA.

In the long term, in the view of the author, China does perceive a prominent international role for herself and to secure these interests, she feels that the country would need adequate military strength which can be achieved only through modernisation. Whether these interests would be compatible with those of her neighbours only time will tell.

The book is in three parts which are all interrelated. It is well researched but perhaps somewhat more descriptive than analytical and would need updatement in the wake of latest international developments.

Air Marshal K D Chadha, PVSM, AVSM, VM (Retd)

Bofors : The Unfinished Story, *New Delhi, Statesman Publications, 1989, p. 161, Rs. 30.00.*

An excellent expose of the Bofors Gun Scandal well documented and produced - unfortunately owing to lack of access to military matters, it could not bring out the failure of the Govt - is not insisting on phased manufacture.

A very important point brought out by the PM's Office relates to a saving of 125 crores in 20 years, by adopting Bofors Gun with a crew of 6, compared with SOFOMA, which required 7, needs to be highlighted. A gun system lasts at least 40 years - Our 25 Pdr Fd Guns have been in service for 50 years - The savings in manpower cost would amount to 250 crores, 14.5% and would have completely ruled out the French Gun.

It is hoped that we have since improved on the infantile system of cost comparisons.

In the quest of 64 crores - 4.5% of the value allegedly paid as commissions pay offs, we are not seeing the wood from the trees, and could land ourselves in a position of shortage of ammunition and spare barrels.

Maj Gen Pratap Narain

Indian Ocean Strategies Through the Ages : with Rare and Antique Maps By M L Bhargava, *New Delhi, Reliance, 1990, p. 347.*

The purpose of the book is to draw attention to the naval traditions of the littoral countries of the Indian Ocean. The challenges and the opportunities facing them today, like exploiting the natural resources of the Ocean for hydrocarbons, marine and botanical products etc.

As is evident from history, no set of nations can dominate the oceans for all times to come. Already the phase of European dominance of Asian waters is coming to an end.

A study of our past naval glory, coupled with the growing importance of the Indian Ocean should be of interest to all of us in India specially our economic planners.

Brig Y P Dev

The Politics of Manpower, 1914-1918 By Keith Grieves. *Manchester, Manchester University, p. 241, £ 12.95.*

During World War I, the operations on the Western Front were largely campaigns of attrition. The main problem for the successive British wartime Governments was the integration of military and industrial activity, within the totality of the war effort, by the effective control and allocation of manpower. The author identifies the direction of Britain's resources until 1918 - the raising of the new armies, the political crisis of December 1916, the collapse of national service scheme in August 1917, and the British Government's response to the German Spring Offensive of 1918. He notes that it was not the last year of the war, that coordinated use was made of mobilised manpower, and analyses the continuity between the premierships of Asquith and Lloyd George. The problem of manpower is reviewed within the wider context of a

war effort which required an unprecedented level of public participation.

This book is essentially meant for those interested in Britain's military, industrial and social history in World War I and in the development of the British Government and British society in the early twentieth century. The antipathy between the War Cabinet and the British General Staff is assessed, rather than emphasise the personality clash between the Prime Minister Lloyd George and the Chief of the Imperial General Staff, Field Marshal Robertson.

Lt Gen S L Menezes, PVSM, SC

The US Army In a New Security Era Edited by Sam C. Sarkesian & John Allen Williams, Colorado Lynne Rienner, 1990, p. 314.

It seems a little too early for Americans to formulate long term strategic plans given the suddenness and swiftness of events in the Soviet Union and Europe. It seems that even with the virtual elimination of Warsaw Pact Alliance and Nato's *raison d'être*, the Americans would like, in the long term to ensure their forces' stay in Europe. Part of the argument is the uncertainty regarding future internal situation in Eastern Europe and in the Commonwealth of Independent State (CIS) and their foreign policy with the Third World. Possible use of European soil for rapid force deployments elsewhere, could be the new argument put forward by the top brass.

Shahram Sepahi JNU

Indian Security - Threats and Strategies Edited by Maj Gen Rajendra Nath and others, Chandigarh Panchnad Research Institute, 1990, pp. 232, Rs 130.

This book is a compilation of fourteen articles on Indian security written by different writers. Subjects include Indo-Tibet border issue, Pakistan and nuclear options. Case of dealing with China on border issues should be illustrative. Lt Gen SK Sinha in his article 'Threats and Strategy' has opined that 'Aksai Chin where not a blade of grass grows is not vital for the defence of India'. He has tried to weigh the relative importance of Aksaichin for China and McMahon Line for India and has deduced "Aksaichin is important for China because it provides a land-link between Tibet and Sinkiang" and that "just as Aksaichin has little defensive value for us, area south of the McMahon Line has little defensive value for the Chinese." Gen Sinha has categorically recommended that we concede Aksaichin to China.

- Lt Col Daljit Singh MSc; psc (Retd)

Power and Change : The Administrative History of the Office of the Chief of Naval Operations 1946 - 1986 by Thomas C. Hone, Washington, Naval Historical Center, 1989, p. 168.

Power and Change is the second in series of the studies carried out by the Naval Historical Center of the department of the US Navy; the first being the Origin of the Maritime Strategy.

This book analyses the changes in the organisation and the influence of the Chiefs of Naval Operations from the end of world war to till today. It discusses in detail the part played by each CNO in running the navy, inspite of the efforts by the Secretary of Defence to impose his authority on individual service. The most important thrust was the need for civilian control of the military forces. This was predominant in Secretary of Defence McNamara's time when he did not trust the uniform leaders of the services and expected his organisation to have a control over military procurement and policy through planning, programming and budgeting system. He even went to the extent of keeping the forceful personalities out of service Chiefs. This was resented by the service officers. The position some what improved in Defence Secretary Laird's time when among other initiatives, he left the details of defence spending with the services once the annual budget was established.

The book discusses the role of the Chief of the Defence Staff and the CNO. There has been a continuous debate in India about the desirability or otherwise of having a separate Chief of Defence Staff. The politicians as well as senior defence officers could learn a few lessons from the USA which has for some time a Chief of Defence Staff.

— Captain R P Khanna, AVSM
Indian Navy (Retd)

Leaders and Intelligence. Edited by Michael I. Handel. *London, Frank Cass, 1989, p. 298, £ 28.00. ISBN 0-7146-3330-5.*

The book deals extensively with the role and the contribution of the ULTRA. One wonders how the course of history would have been remodelled if the Germans had been orchestrating rather than unknowingly feeding the strategic intelligence as disinformation. But in the light of this historical revelation one definitely begins pondering about the tall claims to generalship by the Allied commanders in the Mediterranean, Europe and Russia. On the other hand it perhaps elevates the German leadership still higher.

The authors have done a handsome work of some of the intelligence operations and provided purposeful research material on the Intelligence peoples' great 'battles' for convincing their leaders not only on the quality of the intelligence but its acceptability. This is really where the fundamental question of the intelligence comes : CREDIBILITY. If only it could be so, most of its problems would be resolved. For, despite all claims to the contrary the best of intelligence agencies have come under fire due to their credibility, every now and then.

— Brig C B Khanduri (Retd)

Second World War by John Keegan. *New York, Viking, 1989, p. 598, \$ 29.95. ISBN 0-670-82359-7.*

The Second World War, the greatest war in the history of civilisation, was fought across six of the world's seven continents and all its oceans. The author has

given a definitive exposition of the important events and the consequences of the war and the role played by leaders like Hitler, Mussolini, Tojo, Stalin, Churchill and Roosevelt who dominated and guided the destiny of their nations. The book recounts explicitly, both periodically and thematically, each theatre of war with a strategic analysis of the crucial battles. The author has given a clear description of the war in the West (1939 - 43), the War in the East (1941 - 43), War in the Pacific (1941 - 43), War in the West (1943 - 45). He has selected crucial battles to illustrate the nature and characteristics of a particular form of warfare in each theatre and has written in detail on the air war (Battle of Britain), airborne warfare (Battle of Crete), Carrier Warfare (Midway), armoured warfare (Falaise and Kursk), City Warfare (Stalingrad and Berlin) and amphibious Warfare (Okinawa). The book covers war supplies, war production, occupation including resistance and repression, strategic bombing, espionage including decrypts as well as the secret weapons and the use of the atomic bombs at Hiroshima and Nagasaki.

The author has given a precise account of the war with balance and perception. The book helps the reader to understand the causes, the course and the consequences of the war. The author concludes, "No statesman of the Second World War was foolish enough to claim, as those of the First had done, that it was being fought as a war to end all wars." The book is worthy of a place in any library and any serious student of the Second World War will find this book invaluable.

— Maj General L S Lehl, PVSM, VrC (Retd)

The Dilemma in U.S. Foreign Policy : National Interest Versus Strategic Planning, by K. Holly Maze Carter. *Amonk, Sharpe, p. 247, \$ 42.50.*

This book presents an overview of the issues which effect the US foreign policy in the East Asian region since the Second World War. The focus is on China, Taiwan, Japan, Korea(s) and the Philippines. The economic importance of the region to the US National Security interests have been presented in some detail.

The American experience in the East Asian region, its success and failures, and the three major conflicts of the region have been discussed with great objectivity. The analysis delves deep into history and its impact on the current policies.

In the final chapter the author touches on the future US foreign policy objectives. He is of the view that the East Asian region would continue to be a critical area for the US global interests as the 'American economic future is inextricably linked to this region'.

Finally, he recommends a major reassessment of the present US policy which should integrate a broader 'Asian - Pacific' policy in which India should not be ignored.

A scholarly work of great value to those who are interested in studying the US foreign policy process in relation to her global interests.

— Maj Gen Afsir Karim, AVSM (Retd)

Reforming the Soviet Economy : Equality versus Efficiency Edited by A. Hewett, Washington, Brookings Institution, 1988 p. 404, \$ 16.95. ISBN 0-8157-3603-7.

This book is the outcome of research on the subject under the aegis of the Brookings Institution, which is an independent organisation devoted to nonpartisan research in various fields including foreign policy and social sciences.

In making this study of the Soviet economy and Gorbachev's gigantic struggle to reform it, the author held personal discussions with scholars in the United States, Europe, and the Soviet Union.

By tradition, economic reforms in the Soviet Union have been a combination of the old and the new reform experiments. Khrushchev's *sovnarkhoz* reforms failed because they were motivated more by political than economic considerations. Brezhnev's strategy for changing things was muddled and ineffective. The 1965 reforms too failed because of interference by the ministries which wanted to preserve their position in the system, as a successful radical reform could render them redundant.

The author avers that Gorbachev's reforms fall in a different class. Gorbachev, the writer claims, is the first General Secretary since Khrushchev, who enthusiastically supported economic reforms. In the 7th Chapter the author focusses on Gorbachev's reform programme, while the 8th considers what Gorbachev would mean to the West.

The book is very well planned and written in a lucid, readable style.

— Dr K M L Saxena

Japanese Naval Aces and Fighter Units in World War II by Ikuhiko Hata and Yasuho Izawa - Translated by Don Cyril Gorham Maryland, Naval Institute, 1989, pp. 442. ISBN 0-87021-315-6.

The wide expanses of the Pacific Ocean encompassing several island bastions perforce translated the campaign against the island nation of Japan into primarily an air war in the Pacific. The attack on Pearl Harbour followed by the decisive battles of Coral Sea, Midway, Guadalcanal, Marianas and Leyte Gulf were decided by superior technology and sufficiency of carrier borne aircraft as also the valour and experience of naval aviators operating from small moving platforms continuously buffeted by the wind and the waves.

The first part of the book commissioned by the US Naval Institute Press, contains photographs and brief descriptions of Japan's Naval aircraft. The second part offers short histories of the air groups in the Imperial Japanese Navy from the 1935 China Incident to the end of the Pacific War in Sept, 1945. The third part is devoted to terse pen pictures of 149 Japanese pilots who had shot down 8 or more aircraft. However, 88 ace pilots failed to survive the war which was a high attrition rate and affected the outcome of the conflict in the Pacific. No other aspects, naval, tactical or war narratives have been attempted.

The readership will therefore be mainly confined to the dwindling participants and their families as also aviators, buffs and modellers who have developed a curious interest in this dimension of war at sea. But nonetheless this labour of Japanese

thoroughness will now be available as a reference book in the enlarging records of both sides in World War II.

— Vice Admiral M K Roy, PVSM, AVSM (Retd)

Disaster in Korea : The Chinese Confront MacArthur by Lt Col Roy E. Appleman, Texas, Texas A & M, 1989, p. 456, \$ 35.00. ISBN 0-89096-344-4.

This book covers the operations of the Eighth Army from the launching of its abortive offensive on 24th November until the positions held by it along the Imjin River covering Seoul and stretching across the Korean Peninsula to Kansong on the East coast on 31st December 1950. During this period Lt Gen Mathew B Ridgeway had been appointed Eighth Army Commander in the place of Lt Gen Walton H Walker who was killed in a road accident on 23rd December. The two days of the Eighth Army offensive, the Chinese counter offensive leading to the defeat of the Eighth Army and the retreat are covered in great detail frequently going down to company and at times even platoon levels. The operations of the ROK II Corps, US 25 Infantry Division and US 2nd Infantry Division have a separate chapter devoted to each. There is a full chapter describing the withdrawal of US 2nd Infantry Division from Kunu Ri to Suncheon in the course of which the Division had to run a gauntlet of some 10 miles under fire from the Chinese who had occupied positions covering the road. Detailed description of military operations down to subunit levels chapter after chapter can be heavy reading, but Col Appleman's narration and style make the book interesting and easy to read. The chapter on the withdrawal of 2nd Infantry Division from Kunu Ri makes particularly engrossing reading. The book is the result of extensive and painstaking research. The author has researched most of the actions using 1/50,000 maps of the areas concerned. The book is lacking in adequate maps which makes the detailed description of actions, particularly in relation to terrain features difficult to visualise in the absence of sufficiently detailed maps which only show spot heights. Contoured maps would have greatly helped.

The book is one of a series written by the author on the Korean War.

— Brig R D Law (Retd)

Southeast Asian Affairs 1990. Singapore, *Inst. of Southeast Asian Studies*, 1990, p. 395, \$ 52.00. ISBN 0377-5437.

The Book is an annual publication of the Institute of Southeast Asian Studies, Singapore, a leading research institute of the Region. It covers the events in the Region during 1989, by a group of leading authors from their respective countries. Having visited the Institute on a number of occasions over the last ten years, the reviewer highly appreciates the work that is being done here to study and formulate regional policies. This Book is primarily informative and analyses the political, diplomatic and economic issues in the Region with facts and comments.

In the first part are four articles spanning the region. Of particular interest is an article 'China; 1989 in Perspective'. This is the only article of a country that does not belong to Southeast Asia. Including it here reflects not only the heightened awareness of China in the year of the Tiananmen Square, but also the awareness of

its relevance to the region. The article concludes by asserting China's improved position and strong economic potential notwithstanding recent difficulties.

The Book can be easily divided into two parts. One pertaining to the Association of Southeast Asian Nations (ASEAN) and the other States. The dramatic improvement in the economic growth and stability of the ASEAN States (less Philippines) and that of stagnation and instability in the other countries that followed socialistic policies are too stark to need any emphasis. The ASEAN states have all bounced back after the brief set-back in 1984-85 and are again reporting near 10 per cent growth of GDP. Particular mention must be made of Thailand which is rapidly emerging as the fifth Tiger in East Asia. Indonesia is expected to follow suit by the mid 1990's.

The Cambodian problem continued to hang heavily clouding the security scenario in 1989. But by then it was already a problem that had been relegated to the sidelines. Regional and extra regional initiatives were tried but made little headway.

The Book is very useful to the research scholar or for that matter to anyone seriously interested in Southeast Asia. It is also an useful addition to a major library. Other readers may well be discouraged by the rather heavy price tag.

— Maj Gen D Banerjee, AVSM

The State and Poverty in India : The Politics of Reform by Atul Kohli, Cambridge, Cambridge University, 1989, p. 260, £ 9.95. ISBN 0-521-37876-1.

India's planned economic development since fifties has failed to improve the living conditions of India's poor. Higher growth rates and therefore higher per capita income are not sufficient to improve the lot of the poor. The author has critically examined the serious problem and carried out a comparative analysis of three states governed by different political parties : West Bengal, Karnataka and UP.

The author has carried out an analytical study on the issue in depth supported by balanced arguments and facts. The three Indian states chosen in the study by the author in a controlled manner with the aim of getting some degree of representation into the sample of a one-man survey.

One of the basic flaws of not alleviating poverty is that the regime has not had political or the organisational capacity to implement the redistributive role. A regime incapable of imposing authority typically provides economic incentive to propertied groups to buttress its own political support and at the same time to stimulate productive activities. The resulting pattern of development has generated moderate economic growth but very little distribution of this growth.

From the analysis undertaken in the study the author is of the opinion that the regimes controlled by disciplined left of centre parties offer a rare opportunity for reconciling growth with redistribution within the frame work of a democratic - capitalist development.

— Col J L Sharma

Indian Army : A Grassroots Review. By N. Kunju. *New Delhi, Reliance, 1991, p. 116, Rs. 125.00. ISBN 81-85047-78-2.*

In the past most books on defence matters have been authored by officers giving a birds eye view of Army matters. It is indeed encouraging to see a book written by somebody presenting a worm's eye view of the Army as seen from within the ranks.

Whereas some of his suggestions viz recruitment of the Napalese Gorkhas, apolitical character of the Army, cadre reviews etc are pertinently valid and merit serious consideration at the appropriate levels, the rationale behind subjects like caste-based regiments, Army Chiefs, training during peace time and army traditions, is beyond his perceptions and sensitivity. His ability to squeeze 22 different topics in 116 pages only, in an easily readable prose, is commendable.

However, I am constrained to say that throughout his book, there is a discernably cynical attempt by the author to do down the officer class, which is likely to disturb the excellent and harmonious comradeship that has been and still is the hallmark of the Army. Regretfully, Kunju seems to have used his book as a licence to slander and denigrate the Army's top leadership, a harmful portent indeed.

— Brig Rai Singh, MVC, VSM (Retd)

Threat From within : India's Internal Security Environment by Lt Gen V K Nayar, *New Delhi, Lancer, 1992. p. 263, Rs. 250/-. ISBN 81-7212-010-9.*

The book provides a comprehensive analysis with penetrating insight into the challenges to the security of India from disrupting forces within the country. As the author has been personally involved with such forces in the Eastern and Western parts of the country, his approach to major issues is highly pragmatic and based on personal experience at the top level of administration.

The book confirms the views of some Western political analysts that the new international system is likely to engender conflicts within states caused by ethnic, cultural, religious and racial disparities, and the era of wars between nation states may be over. These postulates, however, can be accepted only after the new world order has stabilized and the above trends become clearer; though presently such internal conflicts appear to be endemic in Yugoslavia, the former Soviet Union, Iraq, Afghanistan as well as in the Indian sub-continent.

In the author's view, the solution to India's internal problems are primarily political and unless prompt and effective action is taken at the political level, the law and order problem will be difficult to manage.

Procrastination and complacency have contributed to the present depressing reality; machiavellian materialism of the political class is turning our tryst with destiny into a terrible tragedy.

This is a very useful book for the student interested in India's internal security concerns.

— N.B.S.

Additions to the USI Library for the Quarter - Ending Sept. 1992

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6. Beveridge, H. The Akbar Nama of Abu-I-Fazl.
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7. Beveridge, Annett S. Babur - Nama (memoirs of Babur)
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10. Cunningham, Alexander Ancient Geography of India : The Buddhist period, including the Campaigns of Alexander, and the Travels of Hwen-Thsang. Reprint 1990
11. Gundevia, YD In the Districts of the Raj 1992
12. Lane-Poole, Stanly Babar. Reprint 1990
13. Malleson, GB Rulers of India : Akbar and the rise of the Mughal Empire. Reprint 1990
14. Nehru, Jawaharlal Discovery of India. Reprint 1991
15. Sitaramayya's Patabhi History of the Indian-National Congress (1885-1947) 1988
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16. Sinha, BPN Valour and Wisdom : Genesis and Growth of the Indian Military Academy 1992
- India - Politics
17. Bhambhri, CP Politics in India : 1991-92 1992
18. Bhai Nahar Singh ed. Political Parties and Organisations 1937-57 : History of All India Gurkha League 1943-49 1987
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19. Bhupinder Singh Indo-Pak Conflicts over Kashmir 1983
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21. Wakhlu, Khem Lata Kashmir : behind the White Curtain
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22. Regan, Geoffrey Great Military Disasters : a historical
survey of Military Incompetence 1987

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23. Collins, Arthur S. Common-Sense Training : a working
(Lt. Gen.) philosophy for Leaders 1978

National - Security

24. Carasales, Julio C. National Security Concepts of
States : Argentina 1992

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25. Cheema, Pervaiz Iqbal Pakistan's Defence Policy, 1947-58 1990

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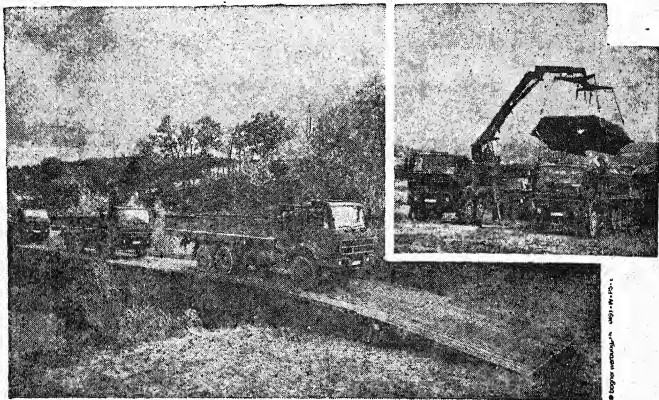
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